

**Tools or Traits: The Path to Successful Continuous
Improvement Implementation in a Logistics
Environment**

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Declaration

I declare that no part of this work has been submitted in support of an application for another degree qualification of this or any other university, or other institute of learning.

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Abstract

This thesis examines the opportunities to improve the implementation of a Continuous Improvement (CI) culture supporting the success of logistics organisations of the future. It is based on the proposition that the manner in which individuals and organisations behave will form greater influence on the success of CI implementation programs than the use of recognised CI tools and techniques taught in the classroom. By definition CI covers wide-ranging themes and its applications are not tied specifically to projects; the literature review will explore how CI can be utilised to improve organisational performance evaluating synergies between CI and associated domains. Enablers and blockers to successful CI implementation programs will be examined leading to an understanding of the amalgam between soft and hard skills and their interactions.

Reflective practice is the chosen approach to the PhD, underpinned with over twenty years' experience of the researcher working with CI as part of their roles and responsibilities. The literature review provided a theoretical base, including the development of content for the semi-structured interviews deriving qualitative data in support of the thesis aims and objectives. This process supported additional unexpected outputs, discussed within the conclusions and recommendations sections. The over-riding domain of the thesis is CI Implementation; however this was broken down into Organisational Learning, Organisational Frames of Reference, Learning Organisations, Culture, Emotional Intelligence and Appreciative Inquiry with supplemental areas of Knowledge Management, Innovation and Trust. The task-orientated elements of CI tools and techniques are described, providing the reader with an overview of their use and potential value to organisations.

Conclusions are drawn regarding the importance of successful CI implementation in logistics organisations. Recommendations are proposed as to how to improve CI implementation by reducing the potential for blockers to stall or ultimately prevent the process from operating as a self-sustaining business as usual activity. This is achieved through a blend of task, organisational and individual cultures working in unison. The main contribution of the thesis is the provision of a CI Implementation Model, developed through the thesis and detailed within Chapter 7. Further contributions to theory and practice are derived from the research undertaken, specifically targeting a cultural rather than task-orientated approach. These include; the wider CI community, Deutsche Post (DP) DHL community, methods and practice. Methods by which colleague engagement can be improved are identified from individual and organisational perspectives targeting discretionary effort of colleagues as a key measure of successful implementation of a CI culture.

Road Map

The thesis opens with an introduction to the central domain, Continuous Improvement (CI) implementation in Chapter 1, including a short appraisal of the positioning of an embedded CI culture in support of successful organisations of the future. The rationale for completion of a PhD by practice is discussed, identifying a number of supporting domains researched to support the aims and objectives of the thesis. The professional career of the researcher is discussed, including their journey to professional recognition as a Chartered Engineer (CEng) whilst developing their CI journey over twenty years, through reflection and practice, coupled with elements of academic learning. A brief overview of CI tools and techniques is provided for the reader in support of their understanding of how they might be applied in successful organisations. The main contribution of the thesis, the CI Implementation Model is briefly discussed within this chapter with the model undergoing development through subsequent chapters culminating in the complete model detailed in Chapter 7.

In the literature review, Chapter 2, multiple domains in support of successful CI implementation programs were researched, providing a theoretical grounding for the thesis, supporting the development of content for the semi-structured interview process. From this qualitative data generated was analysed, providing input to the recommendations in support of the thesis aims and objectives. A model for successful CI implementation and a Systematic Review of Literature Table were provided detailing the path to the research questions raised for the semi-structured interview process.

Chapter 3 provided an understanding as to the research methodology utilised, the decision making process for the sample size and analysis method utilised to interpret the qualitative data derived from the semi-structured interviews. The aims and objectives of the thesis were presented, specifically aligned to Deutsche Post (DP) DHL, with the potential for derived recommendations to be implemented by external organisations where synergy was evident.

The following three Chapters formed the reflective elements of the theses including progression of the researcher's career path to the present day. The development of task vs. people (culture) orientated skill-sets was discussed through this journey including the transition from a more task to culture orientated approach through the researchers professional career. Chapter 7 provided a concise summary of the three reflective elements undertaken as part of the study, leading to the formation of the CI Implementation Model.

Chapter 8 provides detailed feedback of the semi-structured interviews through a narrative approach. The compare / contrast responses are structured in a manner to present the reader with informative dialogue from an informed respondent group, intended to offer detailed information that is both interesting and readable. Answering the '*Why CI?*' question formed a key measure of the semi-structured interview process, leading to a number of supplementary outputs forming part of the thesis outcomes.

The conclusions, recommendations and contributions of the thesis are developed within Chapter 9. The chapter is broken down into a number of sub-sections in order to assist the reader in navigating the content therein. The introductory section includes a tabular representation to summarise the detailed information supporting the thesis objectives, whilst assisting effective navigation back to the key sections of the thesis should the reader wish to hone in on the supporting evidence. Limitations of the research and future research opportunities are discussed; these form part of feedback to be shared directly with DP DHL, specifically focusing on the links between Organisational Learning (OL), CI, innovation and Knowledge Management (KM).

The final elements of the thesis consist of extensive Reference and Bibliography sections, followed by a number of appendixes providing supporting evidence and conformation to a number of areas discussed within the thesis.

Key Terms

Acronym	Description
AI	Appreciative Inquiry
BAU	Business As Usual
BS	British Standard
CAPA	Corrective Action, Preventative Action
CEng	Chartered Engineer
CI	Continuous Improvement
COIN	Company Intranet
CPD	Continual Professional Development
DoE	Design of Experiments
DMAIC	Define, Measure, Analyse, Improve, Control
DMADV	Define, Measure, Analyse, Design, Verify
DP DHL	Deutsche Post DHL. (The author's current employer)
EA	Effective Analysis
EC	Engineering Council
EI	Emotional Intelligence
EOS	Employee Opinion Survey
FCW	First Choice Way
FM	Failure Mode
FMCG	Fast Moving Consumer Goods
FMEA	Failure Modes and Effects Analysis
ICI	Imperial Chemical Industries
IEE	Institute of Electrical Engineers
IEng	Incorporated Engineer
IET	Institute of Engineering and Technology
IIE	Institute of Incorporated Engineers
IS	Information System
iShare	DP DHL intranet based information sharing system
JIT	Just In Time
KM	Knowledge Management
KPI	Key Performance Indicators
LEAN	Is not an abbreviation; it is a term for a systemic approach to waste elimination
LO	Learning Organisation
LSS	Lean Six Sigma
MES	Manufacturing Execution System
MIP	Manufacturing Improvement Teams
OEE	Overall Equipment Efficiency
OEM	Original Equipment Manufacturer

Acronym	Description
OFOR	Organisational Frames Of Reference
OL	Organisational Learning
PDCA	Plan Do Check Act.
PI	Process Improvement
PRA	Professional Registration Advisor
RAG	Red Amber Green
RDC	Regional Distribution Centre
RPN	Risk Priority Number
SKU	Stock Keeping Unit
SME	Subject Matter Expert
TIMWOOD	Acronym relating to seven identified wastes
TPM	Total Productive Maintenance
TQM	Total Quality Management
3PL	Third Party Logistics
UK& I	United Kingdom and Ireland
UK & U	Underpinning Knowledge and Understanding
UK-SPEC	UK Standard for Professional Engineering Competence

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CHAPTER ONE – INTRODUCTION

1.1. INTRODUCTION

This introductory diagram (see Figure 1), illustrates the career path of the researcher indicating the key elements of reflective practice, academic and work-based learning. The timeline is spread over a 30 year period, taking into account professional actions as well as the researchers academic and work-based learning. The professional actions are inter-linked with the academic and work-based learning elements visualised below.

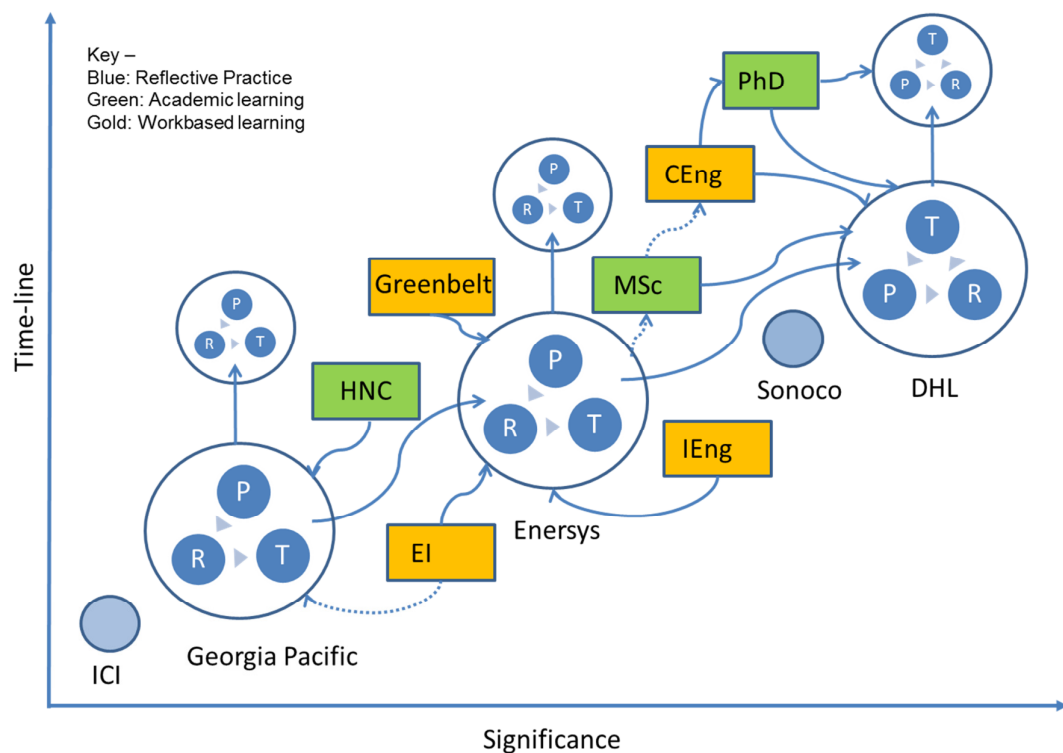


Figure 1 - Career path, indicating academic and work-based learning (Author's Own, 2014).

The Continuous Improvement (CI) journey of the researcher has followed a progressive path from initial use on an informal basis to the present position of formal responsibility for CI at a complex site, seen as one of the more advanced of Deutsche Post (DP) DHL's in the pursuit of a CI culture.

The term CI has become synonymous with organisations that are successful in continually developing their business strategies to meet the evermore challenging

marketplace of today. One increasingly popular approach for enabling CI implementation is through mobilising a high level of involvement of an organisations workforce in sustained incremental problem-solving. The outcomes of this can be considerable, supporting innovation; however implementing programs of this kind are not easy (Bessant and Caffyn, 1997).

The main objective of this thesis is to explore the proposition that the manner in which individuals and organisations interact will form greater influence on the success of Continuous Improvement (CI) implementation programs than the use of recognised CI tools and techniques that can be taught in the classroom. The literature review identified the complexity of the interwoven relationships between people and organisations and this will be investigated to examine their potential to be mutually supportive or detractive of CI implementation when combined.

The primary contribution of the thesis is the development of a CI Implementation model, (see Chapter 7), detailing a pathway in support of embedding a sustainable CI culture within an organisation. This model is the culmination of empirical data, outputs from semi-structured interviews, professional practice and reflection. Further theoretical and practice based contributions are offered within Chapter 9 of the thesis, targeting the wider CI community, DP DHL internal community, methods and practice. The theoretical contributions consist of:

- McKibbin Research Foundation Award 2014, supporting the wider CI community.
- Colleague engagement internal to DP DHL developed through an OL culture approach to colleagues.
- KM internal to DP DHL; treat KM as a tangible asset to drive business performance, ensuring this is evidenced to share value.
- Appreciative Inquiry approach to colleague engagement unlocking discretionary effort, recognised as a '*distinct value proposition*'.
- Provision of a set of internal measures designed to provide a transparent approach to CI implementation, driving effective resource and funding decisions.
- Development of an internal OL study to develop a new work stream providing a fresh approach to colleague engagement.

The practise based contributions consist of:

- Applying the DP DHL Accelerated Change and Transition (ACT) program to sites of over 100 employees to drive a CI culture change.
- Presenting a CI implementation overview and strategy to Senior DP DHL leadership.
- Development of an internal four-tier CI implementation questionnaire to drive clarity and validity of responses leading to a clearer and more objective understanding of where DP DHL CI implementation (culture) is positioned.
- Develop trust in relationships across peer organisations to the point that best practice sharing is possible for mutual benefit.
- Developing the expectations placed upon an organisation to implement a CI culture.

The term CI has become a widely used phrase which has taken on a variety of meanings dependant on how an organisation views it. It can be referred to as a precursor to innovation; the continual quest to improve products, processes or customer service through quality improvement programs. In contrast others view CI as a core value that lies at the heart of an organisations identity and culture (Bessant and Caffyn, 1997).

The diagram below (see Figure 2), details the areas researched within the literature review in support of CI implementation; the core component of successful CI implementation is thus complex to achieve and relies on a number of elements to work in unison for effective implementation to take place. The areas designated are not an exclusive list; however the development of the literature review linked the headings identified as having a level of inter-relationship through the CI implementation journey.

This led to their development as key topics to research further to build up a cohesive picture and they are subsequently detailed within Chapter 2 - Literature Review. The colour coding represents predominance to: task (green), colleague and organisational behaviours (pink) and a combination of task / behavioural (blue) to identify the difference.

The requirement for a CI approach in organisations of the logistics business environment will be interrogated to understand if it is a '*nice to have*' or critical business requirement. I have spent considerable time working with CI through my professional

career and this experience will be compared to the literature review looking for compare / contrast perspectives and new learning opportunities as they unfold.

To facilitate the understanding of CI this chapter includes a representative overview of CI tools and techniques presently utilised within organisations; the expectation here is that the level of detail provided will allow the reader to appreciate the positioning of CI and its relevance to organisations.



Figure 2 - Implementation Circle (Author's Own, 2014).

1.2. BACKGROUND TO THE RESEARCH

I find myself in the position of researching a PhD by Practice, reviewing the implementation of CI programs rather than the management of CI projects which is a significant shift in position for me. This is driven in part by a change in career path which has taken me from highly complex manufacturing environments into the third-party logistics (3PL) automated business of DP DHL where I have direct managerial

responsibility for CI in a large-scale Regional Distribution Centre (RDC) supplying a well-known supermarket chain with products on a daily basis.

Coyle, Bardi, and Langley (2003) comment that 3PL's involves an external organisation that performs all or part of a company's logistics operations. In relation to DP DHL their business portfolio covers all logistics and supply chain functions, however this varies from contract to contract and by business division dependent on the specific customer's requirements.

Lummus and Vokura discuss the definition of Supply Chain Management and offer the following summary:

"All the activities involved in delivering a product from raw material through to the customer including sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, delivery to the customer, and the information systems necessary to monitor all of these activities" (Lummus and Vokura, 1999, p. 11).

In more recent times as technology has developed automation has had the effect of driving supply chain performance, through increased efficiency and speed of warehouse operations. Historically the areas noted by Lummus and Vokura (1999) had been viewed as passive elements under tight management control rather than areas to be looked at from a CI perspective to drive innovation and competitive advantage (Hyland et al., 2003). Consequently progressive management was viewed as meeting the objectives of technical competence with performance judged against strictly defined Key Performance Indicators (KPI's) rather than flexible strategic initiatives. Delighting customers had been viewed as cost minimisation first, all other criteria second, leading to pro-active and innovative areas such as the use of inventory management information and packaging reduction programs potentially being missed by the supplier and customer alike.

Changes in the current organisational environment are characterised by intense competition on the supply side and heightened volatility in customer requirements on the demand side. These changes have left their unmistakable marks on the different facets of organisations (Gomes et al., 2006). To meet the challenges posed by the competitive environment, organisations must infuse quality and performance improvement initiatives in all aspects of their operations to improve competitiveness (Pintelon and Gelders, 1992).

In an increasing global economy, CI and innovation have become pre-requisites for staying competitive. There is an absolute need to service the customer in the world-wide markets of today and in the case of DP DHL, this is driven by two distinct requirements. Firstly, as an ever more demanding end customer; you and I, require everything we desire [products] to be available all of the time at the right price. Secondly DP DHL's offering as a 3PL provider puts added pressure on the organisation to outperform internal sites of their primary customers and other external providers to ensure we maintain our position, find new and innovative ways of working and potentially grow our business in contract size and scope.

DP DHL's business is driven by three specific core values under the banner of First Choice Way (FCW) namely; Employer of Choice, Provider of Choice and Investor of Choice with CI recognised as an enabler in achievement of these goals. The above forms part of the DP DHL Strategy 2015 program which has been in place for a number of years. In April 2014 the organisational strategy evolution has led to Strategy 2020 that will lead on from Strategy 2015. This focuses on core business competencies, working together and developing business opportunities in emerging markets and is identified as '*Focus, Connect and Grow*'. This promotes the drive for CI and innovative products that can support an added value approach to DP DHL's customer proposition.

There has been an acceptance in international best practice organisations of an Organisational Learning (OL) approach to CI, including products and key processes (Boer et al., 2000). To maintain a sustainable competitive advantage in logistics functions such as RDC's; the management teams of these operations can benefit from implementing CI, whilst ensuring that their organisations have the necessary means to support organisational learning concurrently. CI practitioners can be misguided into believing that a formally implemented process is the means to an end for CI. The challenge is to find a way for this often highly academically qualified group to reflect on their delivery of CI programs, increase engagement with the DP DHL colleague population, thereby providing a sustainable implementation component of the CI processes they have direct affinity to.

By undertaking a PhD by professional practice the intention is to link the theory of CI, which is often misunderstood, misinterpreted and misrepresented, with the practice of how to implement a CI culture, rather than simply complete the CI activities themselves. This follows reviews at senior management levels within DP DHL that have indicated the number of expert CI practitioners may not be the issue with CI

implementation in the organisation, in fact they are underutilised. It is the ability to implement and sustain CI processes where issues proliferate.

Should this thesis prove successful in providing solutions to improve the implementation process of a CI culture, the opportunities will be shared across the UK and Ireland (UK&I), potentially the wider regions of the DP DHL and the external CI community. The challenge through this thesis will be to find a way for site managerial teams to reflect on the positive value of CI implementation and the advantages it will bring to them in their respective businesses; this will only be possible by making the implementation process as user friendly, inclusive, effective and sustainable as possible without the need for high levels of on-going resource, a commodity not readily available.

Reflection on professional practice is necessary to address the reasoning behind the failure to implement CI effectively from a 'user' perspective and interrogation of published literature seeks to find underlying patterns that may well be complex in nature to understand. The literature review covered theory, practice and praxis, testing the relevance and impact of a number of identified areas including; Organisational Learning, Organisational Frames of Reference, Learning Organisations, Culture, Emotional Intelligence and Appreciative Inquiry, however as the literature review developed, the areas of Knowledge Management, Innovation and Trust became key components of the overall scope. Whilst not able to address to the same level of detail within this thesis, they were necessary additions to formulate a structured understanding of the overall taxonomy.

Taking account of reflective experiences, coupled with semi-structured interviews of varying hierarchical level colleagues may provide answers to the questions this thesis will raise. The interviewee responses are summarised within Chapter 8 to appraise the need for CI and assess the understanding of DP DHL business professionals in reinforcing the influences of the aforementioned topic areas and what they can bring to an organisation through effective support of CI implementation processes.

The lead into the literature review commences with a summary overview of a number of recognised CI tools and techniques used to support the task oriented components of CI implementation; this leads to a wider review of the areas identified as having the potential to affect the behavioural and culturally orientated aspects of CI implementation.

1.3. WHAT IS CONTINUOUS IMPROVEMENT?

One of many definitions of Continuous Improvement is that it is:

“An on-going effort to improve products, services, or processes. These efforts can seek ‘incremental’ improvement over time or ‘breakthrough’ improvement all at once. Delivery (customer valued) processes are constantly evaluated and improved in the light of their efficiency, effectiveness and flexibility” (American Society for Quality, 2013).

The above definition is offered to assist the reader in understanding the positioning of CI and its relative merit in driving the on-going improvements required in today’s target driven organisations. The proposition that a CI culture gives rise to an innovation driven culture is of particular significance; the development of an innovative culture is crucial to the prospects of an organisations ability to continually develop new customer offerings and future strategic direction (Singh and Singh, 2013).

When CI is implemented in isolation it delivers value; however the potential will be constrained by the size of the individual opportunity and will not support ground-breaking initiatives that would keep an organisation at the forefront in its respective markets. The need for constant development of organisational competitiveness and flexibility to meet customer demands supports the need for new methods to be introduced continually (Black, 1991).

Davis (2006) introduces CI with a number of descriptions covering basic concepts which are noted here for reference. CI activities usually occur at three levels within an organisation. The first level, also called the floor level, concerns itself with Kaizen or good changes within the control of the operator. The second level, Process Improvement (PI), is concerned with continually improving processes. The third level, business process reengineering, is concerned with radical changes in processes.

CI workshops consist of a facilitator, a cross-functional team, and a CI problem to solve. The workshop is usually conducted at a neutral site free from operational distractions that might prevent the team from focusing on the CI opportunity identified. Process Improvement is a method of introducing improvements in steps. Hence, the characterisation of PI is that of step change. This level of CI requires resources not normally available to the production operator and is focused on improving processes and systems to drive efficiencies specifically tailored to the process to be improved.

CI theory has been around for a number of decades and CI tools have been defined, redefined, renamed and become ever more computerised and statistically driven. They are now at the point where data to support understanding is readily available should the end user be capable of knowing what they are looking for and how to capture it objectively. This has caused a paradigm shift of its own to occur as process experience and knowledge embedded in individuals based on tacit knowledge have been incrementally replaced by explicit, data driven systems. These systems offered by software providers such as MiniTab™ and SigmaXL™ afford laypersons who have inherited CI as part of their role or moved into the profession, a high level of information to absorb and relate to.

What the complex algorithmic programs cannot do is ensure projects are progressing to time, have the correct resourcing and skills in place and guarantee business driven goals are achieved as pre-requisites for success. This drives the absolute need to understand why the process of CI, which, by the very nature of its definition, may not be self-sustaining when conceivably it should be following the implementation process.

CI strategies have been acknowledged as the driver behind waste reduction programs for many years now focusing either on small incremental changes or in some cases breakthrough level projects whereby the very essence [culture] at the heart of an organisation may have purposely been changed to affect a positive outcome. The majority of manufacturing industries around the world are obligated to provide their customers with innovation and rapid response to ever changing requirements and this has driven other sectors, such as the supply chain, to follow suit.

Reid (2006) comments that competition and continuously increasing expectations of customer satisfaction have proven to be endless drivers of organisational performance improvements. The CI strategist constantly seeks to identify and implement on-going enhancements in an organisations products, services and processes as a means of delighting the customer. Companies are therefore applying CI strategies to enhance their systems and operations wherever and whenever possible (Malik and YeZhuang, 2006).

CI methods have become widely adopted and regarded as providing an important component of increased company competitiveness. McAdam et al. (2000) argue that development of a CI culture by companies is strongly associated with the development of an innovative culture. Mellor et al. (2000) found that in most organisations CI was restricted to the manufacturing function and was not widely used in other areas. In the

manufacturing world CI implementation programs have been the enabler for continuing business prosperity and in numerous cases survival and this is becoming more widespread across other business sectors as customers around the world continue to drive the culture of '*more for less*'.

Consumers also drive the need for CI and this is seen within the logistics' environment where 50,000 to 100,000 square metre RDC's for food and non-food merchandise are becoming widespread replacing many smaller, well run, financially sound operations. The design characteristics and use of automation; seen as a growing trend, rather than use more people, drive a higher level of operational efficiency that is hard to challenge as these operations come on-line. It is important to note however, that a strong starting position bears little resemblance to the enhanced expectations that can be placed upon an operation as it matures and the end customer expectation increases. This is duly noted by the researcher whose site has increased productivity in the region of 20% over a 10 year period with the expectation to continue to increase this rate of improvement in performance over coming years.

Objectives such as providing excellent customer service and quality are standard requirements, as is a cost effective solution with a cost neutral / reduction being the on-going expectation for the majority of customers. This begs the question as to what will deliver the next step change in the performance of organisations. To compete in this aggressively competitive environment, organisations need to adopt strategies in their operations and logistics environments that will keep them at the forefront of their respective business offerings (Black, 1991).

This drives a basic business expectation that can easily be missed; customers pay for value, they don't pay for inefficiencies inherent in their suppliers or supply chain. This is where CI can be a differentiator and this study will summarise a number of mature CI tools and techniques to enable the reader to identify with them and how they might be applied successfully when a CI culture is embedded in an organisation.

Lanciotti (1999) points out that many organisations do not share market information with their suppliers as mutual trust is lacking. The sharing of strategic information is critical to organisations that are attempting to learn from one another to improve supply chain performance as the opportunity to learn from customers and suppliers would provide management teams with the information required to implement CI more proficiently. This suggests that unless organisations acquire complete data sets of information they will experience difficulties in targeting their CI efforts.

The need for sustained innovation, identified as an output from CI programs, in order to ensure business survival has been well documented (Hamel, 2000). Unless organisations improve what they present to their customer; be that product offering, service level or innovation, there is a high risk of failure. CI is required across organisations as a whole with a two-fold approach of doing more of what they do well and, when necessary, doing what they normally do differently. This establishes a distinctive framework where '*do better*' improvements can be achieved (Day and Schoemaker, 2000).

Considerable attention has been focused on ways in which organisations manage the process of innovation. An important aspect of this concerns the question of extending involvement in innovative activities to all levels of an organisations workforce (Nelson and Winter, 1982; Pavitt, 2002). The underlying principle follows that many employees have a high capacity for finding and solving problems and seizing opportunities if they are given the chance. While some innovation activities require specialised knowledge which can be bought in if required; the bulk of them can be addressed to acceptable standards with a high level of workforce participation and engagement (Bessant and Caffyn, 1997; Imai, 1997; Boer et al., 1999).

The question of how to successfully implement CI programs, without stalling and resorting to previous, less efficient processes and systems is the motivation for the research. It is recognised that implementing a CI program whilst deemed as an improvement by the change agents [implementers], it is a form of change for those expected to embrace it. This is often reason enough to fight against it if transparent communications, trust and mutual benefits are not evident from the start.

1.4. RESEARCH AIMS

The aims of this study explore the present position of DP DHL in relation to CI implementation and offer solutions to the inherent difficulties of implementing successful CI process that are self-sustaining, thus becoming a business as usual (BAU) activity at sites. In relation to the thesis the focus is the UK&I, potentially the wider regions of the DP DHL organisation and the external CI community. It is practical for selective outcomes to be utilised outside of the DP DHL organisation and this realisation was a significant part of the undertaking throughout; sharing best practice is a fundamental expectation of a CI culture.

The diversity of personnel; be that cultural or ethnicity across multi-national organisations may lead to the potential for conflict within them, driven by inappropriate context of implementation plans, cultural ignorance and the loss of implied context and meaning through translation. These areas will be researched to understand if, by the very nature of being different, there are culturally driven barriers for why well planned, coherent implementation projects succeed in one area whilst failing in another with what appears on the surface to be the same, credible implementation plan.

The literature review initially examined Organisational learning (OL) in order to understand if an organisation that is truly engaged with OL as an ethos, can use this as a springboard to affect the positive outcome of CI implementation in their respective businesses. Hult et al. (2003) comment that OL is identified as an important parameter in the accomplishment of logistics and supply chain goals with Flint et al. (2005) identifying OL as a contributor to logistics innovation.

There is evidence within the literature review that cultural changes and transformations are taking place world-wide; following a study (Haire et al., 1966), researchers have continued to search for similarities in culture-specific beliefs and values in various aspects of work-related attitudes and behaviours. The cross-over into OL and how this can be positively channelled in relation to project outcomes, in this case CI implementation, form a key aspect of the literature review.

Heuer et al. (1999) suggests that if cultures of the world are converging then related international business practices will become increasingly similar. It is important to understand the issues surrounding cultural convergence and divergence, and the processes underlying cultural changes. Furthermore, the ability to characterise cultures, and how to enhance the precision of cultural models by understanding when the effects of culture are important will be analysed. This sits clearly as an area to explore in relation to the thesis research.

Cultural models will be reviewed to gain an understanding of the issues that may affect individual or organisational approaches to a situation and thus the idea of CI being implemented at a site where it was previously unknown. Behavioural patterns and competencies of managers who are responsible for CI implementation will be interrogated and desired outcomes sought as to the preferred set of managerial skills required to support the process.

The primary research for the thesis was derived from semi-structured interviews, taking account of my experience of working with CI to support the literature review in formulating the areas to examine. Secondary data including publications and professional journals were researched with specific documentation on the DP DHL iShare and Company Intranet (COIN) portals complementing this. The outcome of this approach facilitated the necessary understanding in relation to CI programs and their implementation within DP DHL as a reference point.

1.5. POSITIONING OF THE THESIS

The question of how to implement CI programs successfully in organisations will be explored within this study; this to include a review of the behavioural competencies of implementation managers in order to develop a skill-set inclusive of task and people (cultural) requirements. To support this, a review of professional competence, including Continuing Professional Development (CPD) in the subject matter area form the basis for the CI implementation practitioners soft and hard skill-set and on-going learning needs. The requirement for organisations to support CI practitioners and implementers development of skill-sets; including task and softer skills elements, will be discussed taking into account the literature review, professional experiences and outcomes of the semi-structured interviews completed.

1.6. BOUNDARIES

The thesis topic areas cover wide-ranging subject matter and it was necessary to define the in and out of scope boundaries.

1.6.1. In Scope

The thesis will cover specific topics to a level of detail required to provide the reader a level of confidence in the positioning of published literature available on the wide-ranging areas researched; including how they support the development of credible, sustainable implementation processes for CI. This to include the causes affecting CI implementation success / failure potential and required skills of CI practitioners and additional colleagues involved. Development of a suite of tools to become the DP DHL 'pack' for CI implementation is an aspirational output from the thesis and will become better understood as the research element develops.

1.6.2. Out of Scope

The detailed development of management approach to support local implementation of CI. An identified aim is to propose what implementation managers require in their skill-set, rather than how to achieve this precondition, as this must be dealt with locally as part of management development programs in line with cultural and ethnic distinctions.

Being able to present a one-fits-all CI implementation solution across cultural boundaries will not work; they would form part of OL approach and not be prescriptive to a particular culture. Localised area management would be expected to develop appropriately defined plans for implementation in line with local culture, ethnicities and expectations.

CI processes such as Corrective Action / Preventative Action (CAPA); Define; Measure; Analyse; Improve and Control (DMAIC) and Lean Six Sigma (LSS) include tools and techniques; these can be trained out and utilised as standalone processes.

1.6.3. Constraints and Restrictions

DP DHL projects that are innovative in nature and provide a competitive edge at the present time may be sensitive to inclusion and are thus excluded as examples. Similarly, customer projects where intellectual property is a concern cannot be compromised and they are also excluded. Data protection information / limitation, including ethical considerations will also be taken into account.

1.7. THE RESEARCHER

On completion of a technical apprenticeship working in the chemical sector, I joined Imperial Chemical Industries (ICI) where my exposure to PI and subsequently CI took on a deeper meaning (see Figure 3 below). The diagram illustrates the five key organisations of career progression with Georgia-Pacific, EnerSys and DP DHL specifically identified against the axes as increasing in chronological time-frame and significance, forming the three reflective elements of the thesis.

Whilst in the employ of ICI I was selected for a lead role supporting a multi-million pound project and was able to display a drive and commitment to success through CI / PI activities that allowed me to stand out from my peer group without consciously being

aware at the time. This took me into further CI / PI improvement roles with an increasing level of opportunity and responsibility. The area of professional development took on a more formal approach at ICI following reflection of where I wanted to be in the future; a Chartered Engineer (CEng). This culminated in achieving CEng status some fifteen years later through defined steps of Continuing Professional Development (CPD) as a member of the Electrical Engineers (IEE) and Incorporated Engineers (IIE) institutes to the present day as a Chartered Member of the Institute of Engineering and Technology (IET) (see Appendix 2).

Figure 3 - Diagrammatical Career Path Relating to Reflective Practice (Author's Own, 2014)

I was trained as a Manufacturing Improvement Team (MIP) facilitator, working in collaboration with consultants in a '*gain-share*' environment on cost out initiatives, frequently involving a number of internal / external stakeholders to ensure collective

discussions from differing perspectives took place. I took the lead on a number of paper machine engineering projects that culminated in the opportunity to take on a major engineering infrastructure project, leading to the initial area of theory, practice and reflection detailed within Chapter 4.

Following four years in the paper industry I moved into the industrial stand-by power sector for EnerSys, a world-wide industrial battery business. This was primarily as a Senior Engineer, however I was promoted into progressively more senior operational roles leading to Site Operations Manager in the relatively short time period of two years. This afforded me a level of opportunity to pursue further avenues of development and pass on the CI skills I had developed over previous years. My CI journey included the achievement of a formal qualification to Green Belt level for Lean Methodologies in 2001 attained as part of a major site project I was responsible for; forming the second area of theory, practice and reflection detailed within Chapter 5.

Whilst at EnerSys I progressed to Incorporated Engineer (IEng) registration as an integral milestone on the journey to Chartership, developing my professional engineering network and commencing my volunteer activities for professional engineering institutions as an interviewer supporting engineers applying for professional registration.

After seven years with EnerSys I moved into a more senior role as an Assistant Plant Manager for Sonoco a leading food packaging business. Whilst this did not present the same opportunities to be actively involved in projects, I retained formal responsibility for CI / PI and took a Manufacturing Execution System (MES) project from conception to full site integration as lead project manager. This project facilitated improvements to the productivity and quality standards of the products manufactured at the site and was an enabler of a cultural change program I initiated at the site.

I currently hold the role of Senior Engineering and Continuous Improvement Manager for DP DHL in a strategically important RDC for Sainsbury's a well-known supermarket chain in the UK. In this role I have progressively developed the site CI team to a position whereby they are now seen as positively driving CI in the UK through initiatives and high levels of colleague engagement. The site has attained '*Lighthouse*' status recognised internally to DP DHL as a centre of excellence, leading to numerous, on-going visits by prospective customers of DP DHL, enabling them to experience first-hand the capability of DP DHL to support their needs.

In my present role I have the opportunity to develop the business aspects of my CI experience to a position where I find myself exposed to senior managers of the business on an on-going basis. This led to the present position, following on from initial reflection, as to the feasibility of researching for a PhD to understand how best to improve implementation processes for CI within DP DHL and the external CI community. This forming the third area of theory, practice and reflection detailed within Chapter 6.

1.8. METHODOLOGY

Through initial research, Organisational Learning (OL) was identified as a key element in the success of project implementation and development of employees to unlock their next level of potential to support future success.

In *The Fifth Discipline*, Senge (2006) argues that experiential learning is the best way to develop, however most individuals never experience the outcome of their actions and do not therefore close the learning cycle. In my profession as a Senior Engineering Manager the combination on Underpinning Knowledge and Understanding (UK&U), coupled with experiential learning, are viewed as two compulsory conditions for measuring competence and developing professional engineering standards leading to formal registration.

I have first-hand experience of this; working to Chartered status, and presently support fellow engineers in their professional registration journey as a Professional Registration Advisor (PRA). Synergies will be sought reviewing the approach to professional engineering development and how it may align itself with the skill set for development and management of CI implementation managers.

Desired outcomes of the thesis include the ability to support an internal CI community capable of leading the implementation of CI programs across UK&I and potentially wider regions for the benefit of the organisation as whole; developing the theory into a defined praxis environment where DP DHL proactively pursues best practice in CI implementation, viewed as a pre-requisite for success of future organisations. The outputs of the thesis will be transferable, where relevant, to external CI communities, including the CI Implementation model detailed within the thesis as this is not tied specifically to DP DHL in its potential application.

1.8.1. Introduction to Continuous Improvement

The intent of this section of the chapter is to offer the reader a brief overview of the CI tools that are commonly used in industry to support the development and execution of CI projects. Each one of the topics raised have numerous published works available that the reader may wish to research further should they be of specific interest. I felt that without this section a layperson in the area of CI may struggle to appreciate the reasoning for the importance of CI and the absolute need for successful implementation of a CI culture in a progressive organisation.

In support of the above view I became astutely aware that CI is not as widely understood as previously thought. Whilst discussing the PhD with staff and students at the University it became evident that the term '*Continuous Improvement*' was not widely recognised; this outcome repeated numerous times in conversations in and outside of professional work situations. These observations indicated that there is much work to be done in the area of developing published work relating to CI implementation.

There may be an opportunity for the marketing departments of organisations to incorporate and support the development of CI implementation programs as part of the overall business strategy offering they have. Reflection of the research undertaken may strengthen or weaken support for this and will be discussed briefly within the thesis outputs.

1.8.2. Kaizen

Kaizen is a Japanese word that has become synonymous with CI and describes the process of CI utilising standardised working methods (Chen et al. 2001). Kaizen is successful because it utilises the lean-thinking approaches of designing a flexible, controllable, efficient, and unique process (Womack and Jones, 1996). There are over 200 CI tools that can be utilised by organisations to drive their performance; however the scope of this literature review will not support that level of appraisal. The areas noted below form the basis for the majority of frequently used tools that cover many strategies, including TPM, JIT, 5S, Six Sigma, FMEA and TQM (Imai, 1986) (See Figure 4).

The word Kaizen was derived from '*Gemba Kaizen*' meaning '*continuous improvement*' (Yan-Jiang et al., 2006) and involves two concepts; '*KAI*' translated to '*change*' and

'ZEN' meaning 'for the better' (Palmer, 2001). It is based on making small incremental changes with the over-riding ethos on waste reduction in any and all processes an operation or business undertakes. This can cover areas from operations, logistics and financial efficiency, through to safety and environmental programs and overall effectiveness (Cheser, 1998) making a significant reduction to production costs (Williams, 2001).

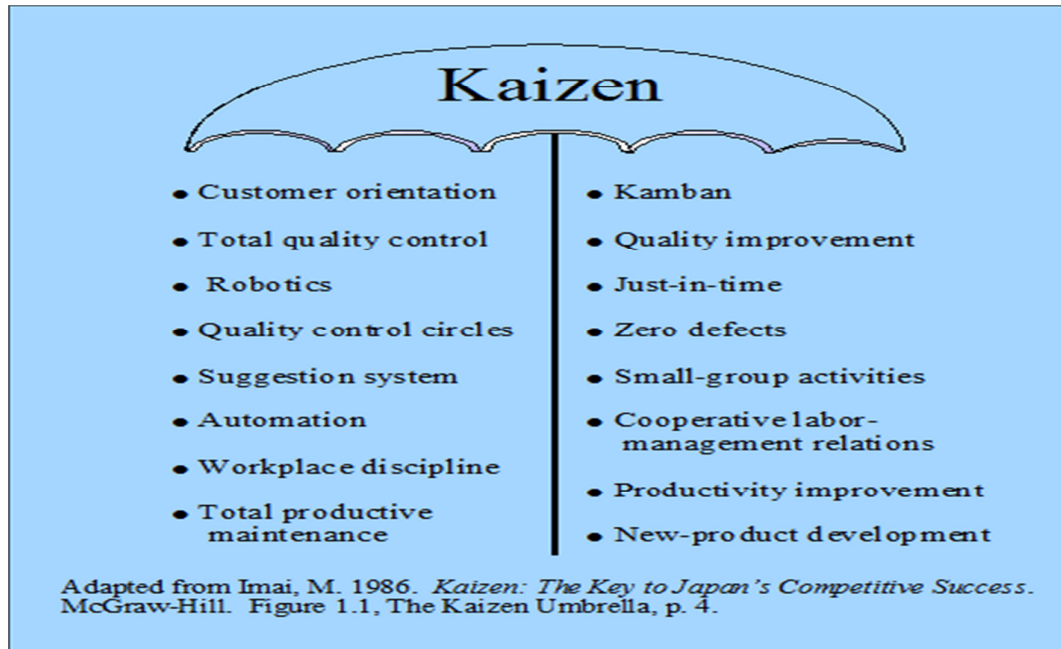


Figure 4 - The Kaizen Umbrella (Imai, 1986, p. 4).

1.8.3. Total Productive Maintenance (TPM)

TPM is a team-based preventive and productive maintenance system which involves all levels of employees, consisting of different disciplines from senior executives to warehouse and shop-floor operators. It was first introduced in Japan and has been successful in increasing productivity and Overall Equipment Effectiveness (OEE) (Hongyi et al., 2003).

The objective of OEE is to identify losses and is a bottom-up approach where an integrated workforce strives to achieve improved OEE by reducing or eliminating chronic or sporadic losses in a process (Nakajima, 1988). OEE is defined as a measure of the availability (A), performance rate (P) and quality rate (Q) of a specific item of equipment or process and strives to reduce or eliminate the six big losses identified as:

Downtime Losses

- Breakdown losses categorised as time losses when productivity is reduced, and quantity losses caused by defective products.
- Set-up and adjustment losses result from downtime and defective products that occur when production of one item ends and the equipment is adjusted to meet the requirements of another item.

Speed Losses

- Idling and minor stoppage losses occur when production is interrupted by a temporary malfunction or when a machine is idling.
- Reduced speed losses refer to the difference between equipment design speed and actual operating speed.

Quality Losses

- Quality defects and rework are losses in quality caused by malfunctioning production equipment.
- Start-up losses are yield losses that occur during the early stages of production, from machine start-up to stabilization.

The definition of OEE differs between applications and authors; however Nakajima was the original author of OEE with De Groote (1995) recognised as one of several authors acknowledged in the field. It is widely used across a number of industrial sectors and is recognised as an objective means of performance management (see Table 1).

	Nakajima (1988)	De Groote (1995)
Availability (A)	$\frac{\text{Loading time-downtime}}{\text{Loading time}}$	$\frac{\text{Planned production time-unplanned downtime}}{\text{Planned production time}}$
Performance (P)	$\frac{\text{Ideal cycle time x output}}{\text{Operating time}}$	$\frac{\text{Actual amount of production}}{\text{Planned amount of production}}$
Quality (Q)	$\frac{\text{Input volume of quality defects}}{\text{Input}}$	$\frac{\text{Actual amount of production - non-accepted amount}}{\text{Actual amount}}$
OEE	$(A) \times (P) \times (Q)$	$(A) \times (P) \times (Q)$

Table 1 - OEE Definitions of OEE Variables (Jonsson and Lesshammar, 1999).

A simple calculation is offered here indicating the extent to which a process is thoroughly interrogated by the OEE measure. If a process were producing goods at 90% of the agreed time at 90% of the targeted throughput with a 90% quality standard this would suggest a high standard of performance without cross-examination. The reality is different however as this would lead to a calculation of:

$OEE = (A) \times (P) \times (Q)$ equating to $0.9 \times 0.9 \times 0.9$ giving an OEE of 72.9%. As a point of reference world class levels are at 85% and above (Nakajima, 1988).

TPM is predominantly used to define production and quality capability, however it has spread from manufacturing to the process industries and further, having the potential to be used in people management as well as generally for improved resource use (Juran and Gryna, 1993). The underlying driver to a successful TPM program is that if all equipment is properly maintained the number of unexpected failures will reduce; safety and quality increase thus driving an improved OEE level. TPM has been embraced in many industries such as automotive; however there is a need for this to develop further with improved implementation practices and procedures (Ahuja and Khamba, 2007).

The essence of TPM is that the operator of a machine or process completes basic, routine maintenance such as checking for leaks and that all parts of a machine or process are working correctly. Issues that they cannot resolve at the time they are seen are reported to line managers or engineers who can fix them before they become significant enough to stop an entire production line or stand-alone item producing or moving products. The expectation is to systematically reduce emergency and unscheduled maintenance as the TPM program is developed (Paropate et al. 2011).

Mora (2002) stated that in recent years, many companies have attempted to implement TPM programs, however less than 10% succeeded. This may be indicative of the inability of businesses to implement change programs successfully, rather than TPM exclusively. The question posed by this research, although specifically targeting CI implementation, should perhaps be widened following on from this work to look at whether poor implementation of any change program is the root cause of failure in many organisations.

1.8.4. Total Quality Management (TQM)

TQM has continuously developed over the last 30 years, however, there is no consensus definition among the experts (Eriksson and Hansson, 2003). Yang (2005);

Kumar et al. (2009) offer definitions stating that TQM is an integrated management philosophy and a set of practices that support the following; emphasis on CI; meeting customers' requirements; reducing rework; long-range thinking; increased employee involvement and team-work; process redesign; competitive benchmarking; team-based problem-solving; constant measurement of results and closer relationships with suppliers.

TQM is a management system which has been designed as an integrated, customer-focused approach to improve the quality of an organisation's processes, products and services (Waldman, 1994). The first and most important principle is customer focus, with the goal of satisfying customers' expectations described as fundamental and is expressed by an organisation's attempt to design and deliver products and services that fulfill customer needs (Dean and Bowen, 1994).

It can be summarised as a customer-focused management system that involves all levels of employees in CI, with an integrated management philosophy. It is aimed at continuously improving the performance of products, processes, and services to achieve and surpass customer expectations (Ugboro and Obeng, 2000), capable of responding to a demanding and changeable environment (Deming, 2000). The ethos is supported by the use of data to drive an objective decision making strategy, setting out a formal account of where the organisation is heading and effective communications to integrate quality into the culture of the organisation.

Bank (1992) suggests that TQM is a comprehensive and systematic approach that intends to improve the quality of products and services through on-going improvements in response to long-term feedback. From a customer perspective this is evident as it is they [customers] who ultimately define the quality of the service or product they purchase; this is a thought provoking concept as we can often wrongly assume that we [supplier] decide the quality standard the customer will be happy to pay for when in actual fact they control this. Organisations have unique cultures and value propositions and these can vary distinctly across different regions and countries of the world. TQM recognises this, and strives to develop CI cultures where delivering excellence in all its products and services is what they do. In relation to TQM, CI represents a commitment to constant examination of technical and administrative processes in search of improved methods (Dean and Bowen, 1994).

TQM supports an inclusive approach to goal setting and accomplishment. Everyone must understand the vision, mission, and guiding principles as well as the quality

objectives of the organisation. Business performance measurement must be transparent and communicated at regular intervals to all levels of employees to support a culture of trust.

Beer (2003) suggests that TQM is ineffective in sixty to seventy percent of organisations due to senior management not realigning their own behavior or supporting changes to policies and procedures. Deming (2000) points out that a high percentage of quality related failures can be attributed to insufficient and ineffective systems in organisations. Generally TQM failures are evident through implementation processes rather than the theory or methods employed; TQM as a stand-alone program, which is not integrated into organisational context and culture, is artificial and cannot work successfully (Moosa et al., 2010).

An indicator of a good system is when routine activities are performed by individuals automatically without their having to be reminded; such an organisation also has a tendency to lower numbers of quality issues. A stronger systems approach not only standardises work and reduces workplace stress; it also positively influences moral and ethical values. This suggests that business improvements do not happen simply through implementation of programs, they are dependent on numerous impacts identifying, organisational behaviour as a key element (Moosa et al., 2010).

Employee commitment and engagement can only be truly obtained when employees feel comfortable to discuss ideas with managers [empowerment] and after fear of retribution, however that may be perceived, is actively discouraged. Organisational strategies that encourage commitment / risk-taking and promote creativity and innovation, including employees at all levels, have been increasingly recognised as key factors in long-term organisational survival (Kanter, 1983).

Potential benefits of employee empowerment identified include stronger task commitment, higher levels of initiative in carrying out role responsibilities, increased innovation and learning, higher job satisfaction and stronger organisational commitment which is predictive of lower levels of employees turnover (Spreitzer, 1995; Thomas and Velthouse, 1990). If this can be achieved through brainstorming sessions, PI workshops and other CI activities, high performance outcomes can be delivered for the organisation with self-managing teams becoming evident as confidence in the open, supportive culture grows.

Advocates of TQM are not in complete agreement on the factors that reflect the adoption of a TQM orientation; however, customer satisfaction, CI, and teamwork are frequently cited as core factors for TQM (Dean and Bowen, 1994). The literature provides a high number of studies reviewing the critical factors for successful TQM implementation. Through a process of grouping similar requirements TQM can be viewed as a composite of the following seven constructs (Motwani, 2001):

- 1) Top [senior] management commitment;
- 2) Quality measurement and benchmarking;
- 3) Process management;
- 4) Product design;
- 5) Employee training and empowerment;
- 6) Supplier quality management;
- 7) Customer involvement and satisfaction.

1.8.5. Just In Time

Just-in-time (JIT) was initially introduced by Taiichi Ohno when he was the Executive VP of the Toyota Motor Company (Ohno and Mito, 1988). Toyota implemented JIT to enable them to meet the exacting requirements of their customers as expectations rose through the 1970's and into the 1980's. The basis of JIT is captured by Voss (1988) who identified that JIT provided cost-effective production and delivery of the right parts in the correct quantities to the desired location as and when they were to be consumed by production processes using minimum labour, materials and transportation resources.

Matsui (2007) focused on the requirements for JIT production systems and the roles and consequences of JIT production for manufacturing companies including the ability of JIT production systems to support improved decisions or practices in other operations management areas. Figure 5 indicates an analytical framework with four major building blocks to assess the real value of JIT production for Japanese manufacturing companies.

Organisational and human resource management provide the infrastructure on which complex manufacturing systems can be established and manufacturing strategy formulated, denoted by block one. The second block consists of core manufacturing operations systems concerning quality, inventory, production planning and information. The third block includes technology development and manufacturing strategy which are

closely related to each other and interact with core manufacturing operations systems. These three blocks work together in determining the competitive performance of the manufacturing plant, indicated by block four (Matsui, 2007).

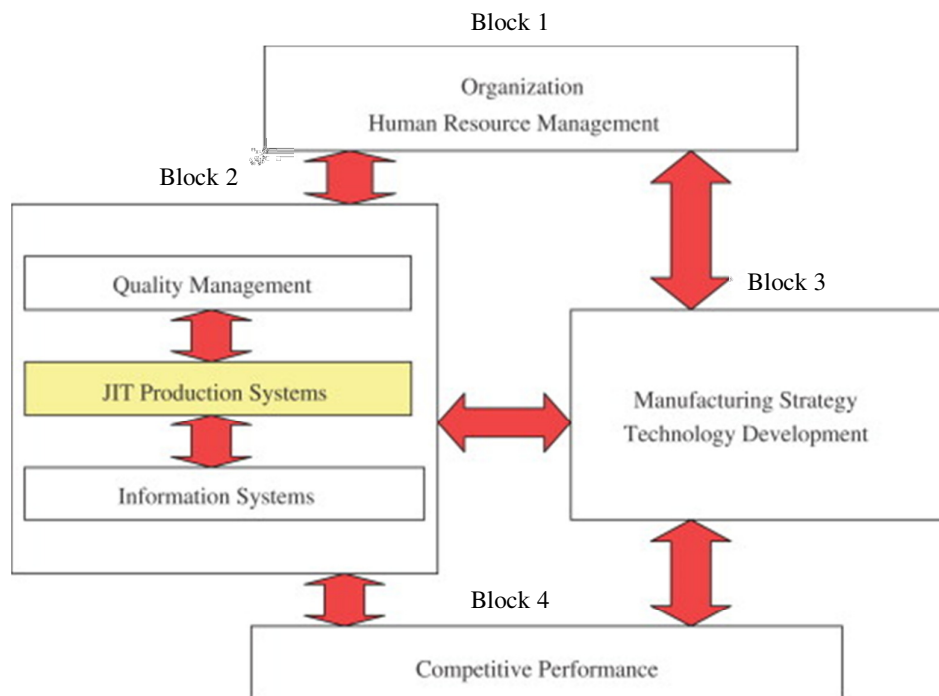


Figure 5 - Matsui Analytical Framework (Matsui, 2007).

This alludes to their use within the logistics environment where customers want to hold minimum stocks to support customer demand. With highly fluctuating demands across a high level of different products; known as Stock Keeping Units (SKU's) and very short lead times, demands placed on suppliers cannot always be met. It is therefore important to note that a JIT philosophy is not a one-size-fits-all solution.

The researcher's workplace would be typical of this with a high number of SKU's, some 14,500 with a 10% to 15% daily fluctuation in demand within 24 hours notice. JIT would not work under these constraints and the improvement opportunity here comes from effective management of the warehouse and transport operations, looking at CI and innovative opportunities rather than a direct JIT approach. In general, this suggests that the successful implementation of management driven practices frequently depends upon organisational characteristics, so that not all organisations can, or should, implement the same set of practices (Souza and Voss, 2008).

1.8.6. Five-S Approach to the Workplace

Osada (1991) refers to Five-S (5S) as the five keys to a total quality environment. The term 5S has often been confused with simply having a clean and tidy workplace when in actual fact it goes much further than that. This situation is not helped by the fact that a large proportion of Western literature still acknowledges 5S as '*housekeeping*' (Becker, 2001; Eckhardt, 2001). Fortunately, 5S is now more frequently understood to be the initial process in having a lean philosophy (James-Moore and Gibbons, 1997; Hines et al., 2004) as it encourages workers to improve their working conditions and helps them learn how to reduce waste, unplanned downtime, and in-process inventory (Gapp et al. 2008). Chapman (2005) indicates that 5S is a systematic approach to lean production; a business system for organising and managing manufacturing operations with the essence based on requiring less human effort, space, capital investment and time to make products with fewer defects.

The 5S's are derived from five Japanese words namely; Seiri, Seiton, Seiso, Seiketsu and Shitsuke. It is a system of waste reduction management through optimisation of productivity and quality by maintaining an orderly workplace, utilising visual management to achieve more consistent operational results. The practice of 5S aims to embed the values of organisation, neatness, cleaning, standardisation and discipline into the workplace, basically in its existing configuration (James-Moore and Gibbons, 1997). There are too many descriptions of 5S to note here from published literature; however a combination of Osada (1991); Bayo-Moriones et al. (2010) and Singh and Singh (2013) offer the reader a summary overview, with additional input from Becker (2001) and Ho (1998).

Seiri, which in English is referred to as the '*sort*' element of 5S, is the process of sorting out necessary and unnecessary items in the workplace and discarding those that are not required. The idea of Seiri is to keep only the required items in the workplace in a convenient location. An event known as '*Red Tagging*' is often used through the sort process in which all items thought not to be required are tagged with a red indicator (small label) and then moved to a quarantine area for review before being disposed of if classified as not needed or waste. Although it can be difficult in organisations that maintain equipment for possible future use this process is most effective when care is taken to identify and keep only essential items (Becker, 2001).

Seiton means '*a place for everything and everything in its place*', with the equivalent English phrase being to '*set-in-order*'. The basis is to have items ready to use and in

good order so that the most frequently used items are the easiest and quickest to locate. The purpose of this step is to eliminate time wasted in obtaining and returning necessary items for an operation. In effect it is a measure based on efficiency of use, be that tools or some other physical resource.

Seiso means '*cleanliness*' which is often referred to as the Shine process of 5S. High standards of cleanliness should be the concern of all and successful organisations have a culture where the shop-floor workers to the senior management team have an expectation placed upon them. The skill with Seiso is to clean what is necessary at a frequency that ensures a high standard is maintained; unnecessary cleaning or repeat cleaning of the same area is '*Muda*', the Japanese word for waste and must be avoided at all costs.

Seiketsu means maintenance of the Seiri, Seiton and Seiso steps of 5S and in English it is classed as Standardisation. One way to achieve this is through audits of the 5S processes that have been implemented to check for deficiencies with results being displayed for all to see. A simple Plan-Do-Check-Act (PDCA) document should be employed to allow for the recording of changes and incremental improvement opportunities including photographs where this adds to the understanding and clarity. The emphasis here is on visual management and 5S standardisation which go hand in hand. Continuous training and 5S audits should be used to replace bad habits with good ones. This process helps people to become disciplined (Ho, 1998).

Shitsuke is all about maintaining and reviewing standards and is known as the Sustain element of 5S. The essence is to drive a culture where the first four processes of 5S are embedded and become the BAU way to operate. The audit process identified in the standardise phase should help to maintain focus on having higher standards and stop any decline back to the older, less efficient workplace practices when implemented correctly. When an issue arises such as a suggested improvement, a new way of working, a new tool or a new output requirement for a process, the first four phases of 5S should be reviewed making changes as appropriate.

Bayo-Moriones et al. (2010) explored the relationship between 5S use, contextual factors and performance. The contextual factors comprise structural features of a business, environment, human resources, technology and quality management. The performance measures refer to improvements in productivity, quality, employee satisfaction, lead time and new product design.

A questionnaire survey was conducted in 203 Spanish manufacturing plants. The results indicated the existence of a positive relationship between the use of 5S and various contextual factors such as size, the integration of the plant in a multinational group, the type of product manufactured, the technology used and the quality programs in the plant. Moreover, 5S was positively related to operational performance measures, especially those referring to quality and productivity levels (Bayo-Moriones et al., 2010).

Taiichi Ohno (1988) identified seven types of waste that are widely known by the acronym **T.I.M.W.O.O.D.** These seven wastes fall within the 5S methodology and consist of unnecessary '*transport*' of goods adding no value; excessive '*inventory*' of parts yet to be completed or finished products waiting to be shipped; unnecessary '*movement*' of people or product; '*waiting*' potentially caused by uneven line balancing; '*overproduction*' of items not needed; '*over-processing*' through unnecessary steps that the customer may not have paid for and making '*defective*' products (Womack and Jones, 2003).

There is an eighth waste identified as human capital potential. The idea of a qualitative eighth lean waste, adding to Ohno's (1988) taxonomy has been discussed in literature however there are many different descriptions (Gibbons et al., 2012). Colleagues who work in organisations understand all kinds of issues that could support improvements; they can help solve problems, however these opportunities are wasted if management fail to seek this knowledge from them (Rizzo, 2008). Colleagues will see things differently to managers; identifying issues that they [managers] are not aware as they do the job, this leads to the under utilisation of employees (Womack and Jones, 2003).

1.8.7. Six Sigma

The primary objective of Six Sigma (SS) methodology is the implementation of a measurement based strategy focusing on process improvements through the application of SS best practice techniques. SS commenced in the late 1980's at Motorola to address the company's chronic problems of meeting customer expectations in a cost-effective manner. The SS based DMAIC method is applied for improving existing processes and looking for incremental improvement. The SS Define; Measure; Analyse; Design and Verify (DMADV) is applied for developing new processes or products at SS quality levels (Allen and Kilmann, 2001).

Through pursuit of improved organisational effectiveness, the SS approach is currently gaining popularity in high-performance organisations aimed at producing the highest levels of quality. Managers allocate resources to the improvement activities they regard as crucial for increasing organisational performance. SS is an improvement method that aims to increase overall business performance through solid and accurate business focus (Savolainen and Haikonen 2007).

A live example of the process is discussed by Prancevicius et al. (2008) who examined the application of the Lean Six Sigma (LSS) DMAIC model to improve a plastic cup manufacturing process. The variation in the thickness of the plastic film caused problems in the thermoforming process and subsequently increased the production cycle time. The improve phase of DMAIC model utilised the Japanese 5S technique to achieve a dramatic improvement in the process which resulted in a net saving of \$100,000 annually.

1.8.8. Failure Mode Effect Analysis

Failure Mode Effect Analysis (FMEA) was first developed at *The Grumman Aircraft Corporation* in the 1950's and is a useful assessment tool for product or system safety and reliability analysis in design or other reliability engineering fields (Brad, 2008). FMEA is an engineering technique used to define, identify and eliminate known and / or potential failures; the essence is to ensure that problems, errors from the system, design, process or service being provided are resolved before they reach the customer (Linton, 2003).

Zhang and Chu (2011) reason that FMEA is a powerful tool for identifying and assessing potential failures. The tool has become increasingly important in new product development, manufacturing and engineering applications. Generally, risk assessment in FMEA is carried out by using Risk Priority Numbers (RPN's), which can be determined by evaluating three factors: Occurrence (O), Severity (S) and Detection (D). Table 2 offers an example of an FMEA process.

In simplistic terms, FMEA is a SS tool for collecting objective data relating to potential failures of a system or process and supports a program of how to avoid repeating identified mistakes. It requires a step-by-step approach to identify all the possible points of failure in a design, production process, product or service offering. Failure mode (FM) refers to the way in which a failure might occur, principally errors that may affect a customer. Effective analysis (EA) involves interpreting the consequences of

potential failures by determining how frequently a failure might occur, ensuring that failures can be detected and identifying which potential failures may cause the most significant impact and thus drive a high Risk Priority Number (RPN) for their mitigation.

Process or Product Name:		Prepared by:		Page:	of
Process Owner:		FMEA Date (Orig):		Rev.	

	Potential Failure Mode	Potential Failure Effects	S e v e r e	Potential Causes	O c c u r r e n c e	Current Controls	D e t e c t	R e p a r t u r e	A c t i o n s R e c o m m e n d e d	R e s p.	A c t i o n s T a k e n	S e v	O c c	D e t	R P N
What is the Process Step or Input?	In what ways can the Process Step or Input fail?	What is the impact on the Key Output Variables once it fails (customer or internal requirements)?	How Severe is the effect to the customer?	What causes the Key Input to go wrong?	How often does cause or F.M. occur?	What are the existing controls and procedures that prevent either the Cause or the Failure Mode?	How well can you detect the Cause or the Failure Mode?		What are the actions for reducing the occurrence of the cause, or improving detection?	Who is Responsible for the recommended action?	Note the actions taken. Include dates of completion.				
								0							0
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Table 2 - Failure Mode Effects Analysis Table.

Teng et al. (2006) brought attention to the implementation of FMEA in a collaborative setting; the issues that occurred through the implementation process, and that the tool can be used by all stakeholder parties in a collaborative environment for the FMEA process. The discussion included the procedure for an integrated FMEA approach; how to implement the procedure in a supply chain and common problems occurring when implemented in an automotive environment. The research provided an example of variation in the ranking of severity, occurrence, and detection to show that inconsistency may delay FMEA implementation in a supply chain.

The objectivity in how the FMEA process is administered is, as with many human interaction processes, open to interpretation as noted. A risk-adverse or alternatively risk-supportive approach in application of the process must be understood and steps taken to mitigate the impact of individuals' perception and ranking against FMEA criteria (Teng et al., 2006).

Chin et al. (2009) stated that FMEA is a methodology to evaluate a system, design, process or service for possible ways in which failures (problems, errors, risks and

concerns) can occur. It is a group decision function and cannot be done on an individual basis. The FMEA team often demonstrates different opinions and knowledge levels from one team member to another and produces different types of assessment information such as complete and incomplete, precise and imprecise, and known and unknown because of its cross-functional and multidisciplinary nature.

Tanik (2010) emphasised the advantages of using systematic quality improvement tools such as FMEA in every part of the supply chain in food handling and production. It is suggested that this process can be improved by analysing the potential failures that can occur during the process of gathering data and transforming it into design stages by the use of the systematic methodology FMEA. The study offered a systematic approach to improve the order-handling process in food package production, and this approach can be generalised to many order-handling processes to strengthen the supply chain in any industry.

1.9. SUMMARY

The summary sections of each chapter will demonstrate their contribution to the thesis through the visualisation of the CI Implementation Model identified below, (see Figure 6). The diagram will be updated through each chapter, with highlighting indicating the progression of the model at each stage.

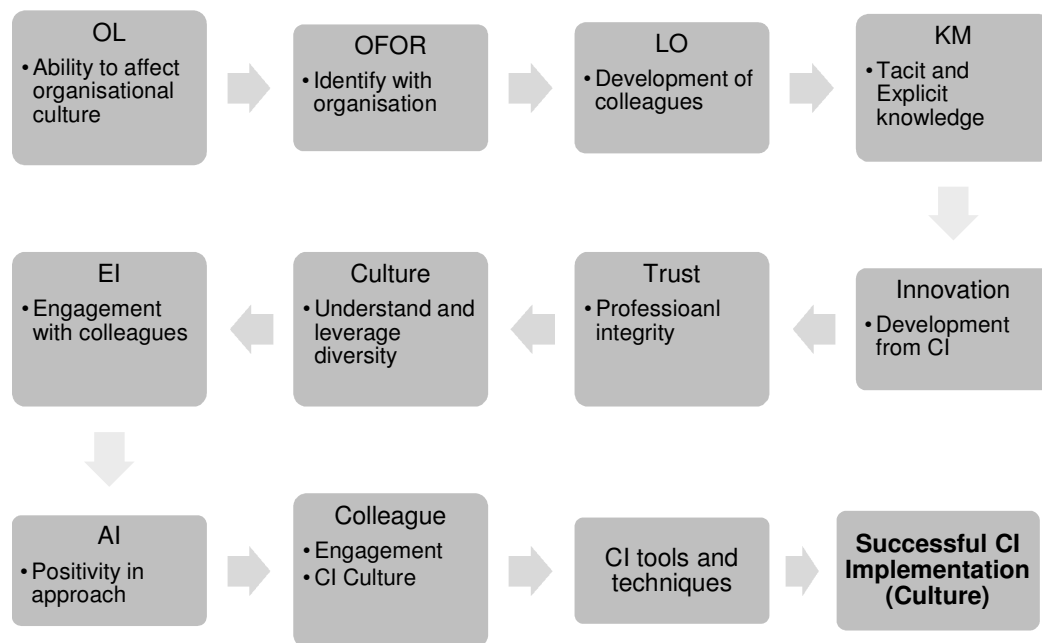


Figure 6 – CI Implementation Model, Initial Framework (Author's Own, 2015).

The researcher's professional career path in relation to CI was briefly discussed identifying the three key projects which inform the reflective sections of the thesis. A diagrammatic representation of the areas researched within the literature review was provided suggesting successful CI implementation is complex to achieve and relies on a number of components to work in unison for effective implementation to take place.

The introduction provided an overview of CI and initial research undertaken into relationships between people, organisations and CI. This was coupled with an insight as to the need for a CI approach in the organisations of the future and how they might position themselves in relation to a CI culture. A brief overview of CI importance was developed, including considerations as to how CI implementation can support organisational prosperity, with the literature review suggesting CI is business critical. The influence of an OL approach to CI implementation was discussed; this will be developed further within the main literature review.

To facilitate the understanding of CI, this chapter included a representative overview of CI tools and techniques presently utilised within organisations to a level of detail which allows the reader to appreciate the positioning of CI and its relevance.

This PhD by Practice is a reflection of a thirty year career with over twenty years direct involvement with CI. The piece of work is rooted in the domain of CI implementation with contributory domains covering a number areas researched within the literature review. A series of research questions were developed and subsequently presented to an informed and selective working group for the purpose of validation or refutation.

CHAPTER TWO – LITERATURE REVIEW

2.1. INTRODUCTION

This chapter will review the relevant theory and literature with regards to the chosen topics with the desired outcome of gaining a comprehensive understanding of the subject matter of interest. Various sources of information were sought throughout the study to provide a comprehensive understanding of the areas relevant to successful Continuous Improvement (CI) implementation. Figure 7 illustrates the academic and professional learning supporting the path of the researcher with regards to the development of skills in engineering, CI and empirical research capability. The highlighted timeline is spread over a fourteen year period, taking into account studies undertaken between 2001 to the present day.

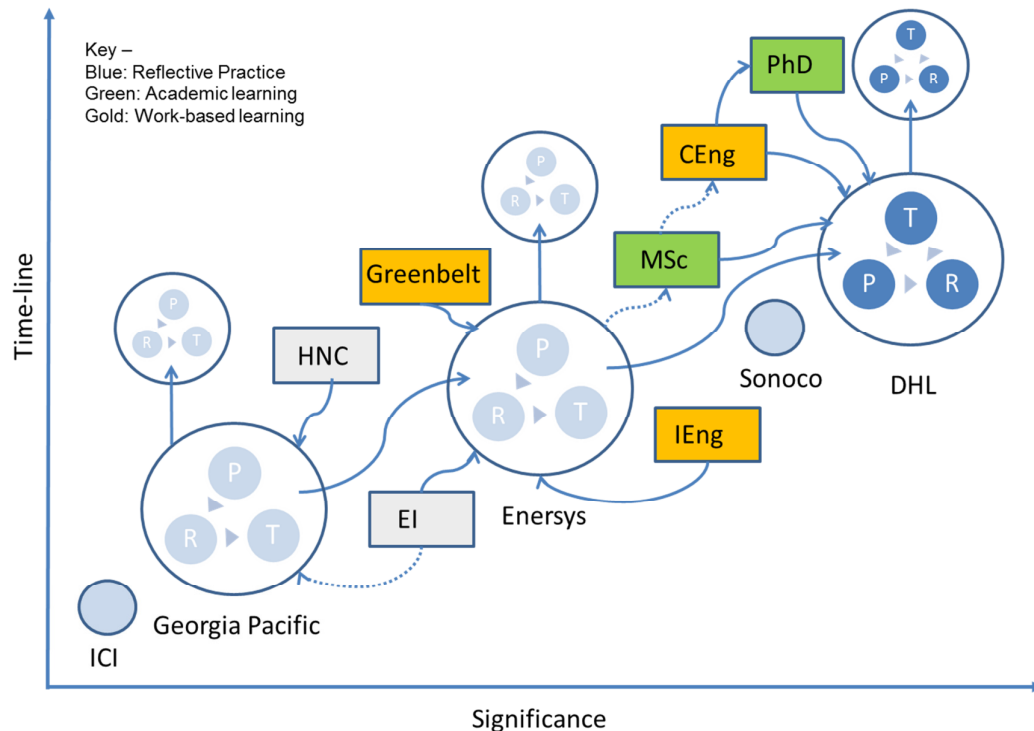


Figure 7 – Academic and Professional Learning Pathway, (Author's Own, 2014).

Specific areas of research were targeted following an initial study into available literature relating to CI tools, techniques and factors influencing CI implementation. This facilitated a honing in to areas of specific interest, tied into initial reflections, whilst also expanding the research into areas not previously considered due to them becoming relevant following initial research. This approach minimised the time spent looking into more generalised areas that would not add significant value to the study.

The literature review was conducted using numerous sources covering a range of media. A comprehensive review of *The University of Bolton* library facilities, including the library's electronic information systems was completed. This provided a number of opportunities for information gathering as well as numerous internet sites to pursue. The internal portals of DP DHL iShare and Company Intranet (COIN) were reviewed for relevant information and this was utilised as part of a compare / contrast benchmarking process for CI implementation.

The scope of the literature review was identified as requiring a high time commitment in order to collate the necessary information for the research. To enable sufficient progress to be made a list of initial books, journals, and external to library publications were formulated for review. This led to a flattening out and subsequent narrowing in scope as the research element of the thesis as it matured over a two-year period.

It was paramount for the literature review to provide content for the semi-structured interview questions; this through provision of information that could be utilised to create the depth of questioning and areas of interest to be examined, in alignment with the aims and objectives of the thesis as detailed in Chapter 3. This was achieved, whilst also supporting unexpected outcomes developed in later chapters.

2.2. LITERATURE REVIEW

In order for companies to remain competitive and retain their market share in the global economies, Continuous Improvement (CI) of processes has become necessary to satisfy both external and internal customers (Shingeo, 1988). Competition and continuously increasing expectations of customer satisfaction have proven to be endless drivers of organisational performance improvements with CI strategists constantly seeking to identify and implement on-going enhancements in an organisations products, services and processes (Reid, 2006).

What is often missing in business transformations such as a CI implementation is the ability to execute the processes proficiently, suggesting that organisations have the experts available to support a business improvement but often lack the robust processes or understanding to do so. Furthermore the approach of those classed as '*change agents*' comes under scrutiny as their behaviour can enable or prevent successful improvement program implementations (Womack and Jones, 1996).

Hopper and Hopper (2010) comment that traditional European and British decision making consisted of a system known as '*split-level decision-making*' this purports a process in which planning and decision making are functions reserved for different groups of people often from different social classes than those it will affect. The results obtained are detailed plans driven from above with little or no room for contingency or input from those they would directly impact. This leads to fast decision making with painfully slow and often error-ridden execution, with [senior] management having little understanding as to why there are difficulties with implementation plans.

2.3. ORGANISATIONAL LEARNING

Organisational Learning (OL) is an essential component of CI implementation and this thought is captured by Struckman and Yammarino (2003) who state that CI and OL are both linked to organisational change, one of the most widely discussed and studied organisational phenomenon. The implementation of organisational change requires supportive structures within an organisation to make it happen and this is often the area that is least understood and thus fails to deliver. Beer et al. (1990) emphasised the high level of persistence required to deliver significant organisational change requiring commitment and leadership to see the business through the short-term '*headwinds*' of competing priorities and challenges.

CI implementation requires commitment to learning at all levels of an organisation, however the ability of CI and OL to deliver positive results when applied collectively is not coherently understood and will form a key theme of the literature review to increase understanding. There are not many scientifically sound reports and case studies of six sigma implementation [a form of CI] and this in itself forms part of the problem with implementation processes (Savolainen and Haikonen, 2007).

The definition of OL by Huber (1991) comprises of three distinct areas for an organisation: learning through the processing of information, potential behavioural changes and acquiring knowledge potentially useful to the organisation.

Hislop (2009, p. 93) continues, stating: "*OL comprises of individual or group learning embedded within organisational structures and processes*". Vince et al. (2002) supports this position stating that you cannot simply equate the sum of individual and group learning as OL only occurs when the learning impacts on organisational level processes and structures. This does not happen by design and the requirement is for organisations to be capable of sustaining critical reflection on their established practices and procedures.

Within the literature review it is evident that the concept of OL is complex and multidimensional. Within the term '*organisational learning*' the word learning is viewed as a '*live metaphor*' (Tsoukas, 1991) that transfers information from the relatively familiar domain of individual learning; known as the source domain, to the organisation, which is a much less understood target domain. To put this into context, the knowledge and learning of the individual is stored in a neat and tidy physical location, our brain. The depository; in this case the organisation, is a complex entity with a vast array of structures and processes embedded at the heart of it.

Garvin (1993) emphasises that learning is a precondition for CI and that it requires new learning, forming a continuous loop. Garvin goes further citing a number of organisations that have benefitted from identifying the link between learning and CI by questioning how they can improve if they do not learn something new. In the absence of learning, companies simply repeat old practices delivering cosmetic and short-lived improvements. Locke and Jain (1995) note that an organisational leader who will not learn carries the organisation down with him, whilst one who embraces learning raises the competence of the whole organisation.

Many organisations emphasise the importance of teams, relationships, and networks as the basis for effective transfer of their internal knowledge. O'Dell et al. (1999) determined that documenting a practice carried out by an organisation does not guarantee transfer of the knowledge to others. Some companies emphasise the importance of sharing knowledge between people informally without capturing it in a '*corporate memory*' receptacle; however benchmarking partners also share knowledge through structured mechanisms and team approaches.

Informal sharing of knowledge can be deep, creative, and provide unexpected results whilst establishing long-lasting, effective networking. Organised knowledge sharing can reach much broader populations with greater value to an organisation; however this method may suppress spontaneous and creative aspects of informal sharing modes. Tsang (1997, p. 78) supports this commenting that:

"Difficulty of achieving accurate learning is that nowadays organisations face an increasingly complex and fast changing environment. Even with sharp analytical ability and diligence, it is often difficult, if not impossible, to identify correctly the exact cause-effect relationships of the events concerned".

An additional hindrance with learning from experience is that samples of experience are usually made up of short time-scale episodes: *"Historical events are observed, and inferences about historical processes are formed, but the paucity of historical events conspires against effective learning"* (March et al., 1991, p. 1).

OL can be characterised by the technical and social variants of an organisation using cyclical models to help interpret outcomes. Technical aspects are based upon measurement and learning curves; the social position focuses on the human factors such as the ability of individuals to learn from their work experiences, both as an individual and as part of a team. Kolb's (1984) experiential learning cycle has formed an inspiration for many other, subsequent models. Learning is seen as a continuous process and goes through several stages involving generation of data (qualitative and quantitative), interpretation of the data and development of subsequent action plans.

How many organisations take OL for granted? What constitutes a learning organisation? If a PowerPoint presentation is put together and conveyed to employees of an organisation does this really constitute the prerequisite for a change program or some other form of work-related learning? These are important questions for implementers of CI to review in order to understand what type of changes they associate with the need for supportive learning of those impacted.

Miller and Katz (2002, p. 7) comment that most organisations are filled with barriers; rigid structures, poor training processes, outmoded equipment, misguided incentive programs and discriminatory promotion practices that keep people from contributing the full breadth of their skills. These barriers are typically rooted at the very culture of an organisation. Attwood et al. (2004) comment that:

"Top down approaches to change, often through a mixture of pronouncements, restructurings and training packages, usually fail because they limit other people's contributions and therefore their sense of ownership. From a whole systems perspective, leadership is about creating situations where people themselves start to form new meanings" (Attwood et al., 2004, p. 31).

In Table 3 below, Tsang (1997) offers six alternatives to define OL. Within published literature there are numerous variations to those noted here with the cognitive trait being generally concerned with knowledge, understanding and insights. There is however a divide among published definitions as to whether a change in actual or potential behavior is required; in effect do the lessons learned by an organisation have the potential to impact its future behaviour by becoming embedded in its very essence.

Definitions of Organisational Learning.		
Definition	Perspective	Nature of Study
"A definition of organizational learning as the acquiring, sustaining, or changing of intersubjective meanings through the artifactual vehicles of their expression and transmission and [through] the collective actions of the group" (Cook and Yanow, 1993, p. 384).	Cultural	Descriptive
"Organizational learning refers to the process by which the organizational knowledge base is developed and shaped" (Srivastava, 1981, p. 15).	Cognitive	Descriptive
"An entity learns if, through processing of information the range of its potential behaviours is changed" (Huber, 1991, p. 89).	Cognitive and behavioural (potential)	Review
"Organisations are seen as learning by encoding inferences from history into routines that guide behaviour" (Levitt and March, 1988, p. 320).	Cognitive and behavioural (potential)	Review
"Organisational learning means the process of improving actions through better knowledge and understanding" (Fiol and Lyles, 1985, p. 803).	Cognitive and behavioural (actual)	Review
"By the term 'organizational learning' we mean the changing of organizational behaviour" (Swieringa and Wierdsma, 1992, p. 33).	Cognitive and behavioural (actual)	Prescriptive

Table 3 – Definitions of Organisational Learning (Tsang, 1997).

Argyris and Schön (1978, p. 323) discuss that: "*Organisational Learning refers to experience-based improvement in organisational task performance*". The word '*learning*' affords a certain level of positivity and OL is typically associated with notable improvements in organisational performance.

A main driver for OL is to improve organisations, however this is not guaranteed as learning does not always improve organisational performance (Cook and Yanow, 1993; Huber, 1991). Several explanations are offered for this; firstly the difficulties of turning the learning into practice are evident and secondly a lack in accuracy of the learning content in relation to the desired outcomes may cause ineffective solutions to be attained. Thirdly, if the difficulties associated with implementation are added then having credible learning and accurate information do not necessarily provide definitive conditions for success.

Tsang (1997) discuss a number of difficulties with inaccurate or ineffective learning, suggesting that individual biases may affect the outcome of experiential learning. When expanded to the organisational level the means by which data is collected, scanned and interpreted may constrain the frame of reference with the diffusion of information adding a further complication.

Engagement with employees is required to ensure that any feedback received is objective and does not portray a picture based on perception of employees who are perhaps, not content with their work tasks or line management. This can lead to false messages flowing into an organisations management structure with unnecessary plans to mitigate '*red-herring*' issues being put together rather than using resource effectively to solve genuine concerns. Schein (1985, p. 52) captures this, offering a thought provoking summary of their perception of organisation and employee behaviors:

- 1) Employees are primarily motivated by economic incentives and will do whatever affords them the greatest economic gain.
- 2) Since economic gains are under the control of the organisation; the employee is essentially a passive agent to be manipulated, motivated and controlled by the organisation.
- 3) Feelings are, by definition, irrational and therefore must be prevented from interfering with a persons' rational calculation of self-interest.
- 4) Organisations can and must be designed in such a way as to neutralise and control people's feelings and therefore their unpredictable traits.

The conscious decision by employees to manipulate data to support personal gain before sharing with their line or project managers must not be ignored; this may be at the conscious or subconscious level. How an organisation can mitigate the potential for this to occur is outside the scope of the thesis; however it must be taken into account when any type of change program is pursued.

Wenger and Snyder (2000) propose that many organisations are communities. They are also often globalised, dispersed, driven by powerful stakeholders, in partnerships and / or operating in difficult labour markets and the costs of demanding conformity in these communities can make enforced change counterproductive.

Complex implementation programs need considerable adaptation before they are truly integrated within the routines and rituals of an organisation. Barley (1986) has shown how identical systems can be implemented very differently by organisations, dependant on their existing routines, personalities and hierarchies. This is of particular interest in relation to the approach for CI implementation across an area as vast as the UK&I, potentially the wider regions of DP DHL and the external CI community in a consistent manner.

There is a lack of consensus in published literature (Hislop, 2009), which leads to a position whereby a simple definition of learning is not possible. Hislop (2009) presents an overview (depicted in Table 4) to summarise the most important ways that learning in organisations is characterised.

Frameworks.	Concept / Levels.	Description.
Learning Modes.	Cognitive.	Learning as a change in intellectual concepts and frameworks (at individual or group level).
	Cultural.	Change in inter-subjective, group based values, concepts or frameworks.
	Behavioural / action based.	Learning occurs primarily through action followed by a process of critical reflection.
Learning Types.	Single-loop.	Incremental changes within a coherent framework of theory.
	Double-loop.	Learning where existing theories / assumptions are questioned and reflected upon.
	Deutro.	The highest level of learning which involves the process of learning and reflection itself being questioned.
Learning Levels.	Individual.	Changes in the behaviour or theories and concepts of an individual.
	Group.	Changes in group level, shared understandings or practices.
	Organisational.	Institutionalisation at organisational level of changes in behaviour / theory.
	Inter-organisational.	Learning at supra-organisational level – for example within a network or sector.

Table 4 – Learning in Organisations (Hislop, 2009).

The diversity of ways that learning is conceptualised within published literature support the view that the many different processes can be characterised into three distinctive types; learning through formal training, learning through the use of interventions in the workplace and learning that is embedded through exposure to day-to-day activities and individuals' reflections upon them (Hislop, 2009). Single-loop learning is associated with incremental change by applying new methods, then looking for feedback on their consequences in order to make necessary adjustments and revisions whilst double-loop learning is linked to radical change involving strategic level changes (Easterby-Smith and Araujo, 1999).

Crossan et al. (1999) devised a framework to capture learning at different levels and this was later modified (Zietsma et al. 2002) by adding two additional action based learning processes. Figure 8 represents the relationships of the Crossan / Zietsma framework taking into account the three levels of learning and six learning processes. The feed forward loop, also referred to as exploration based learning involves the

development and adaptation of new knowledge. Hence this level of learning commences with individual learning through intuition or attending, leading to group and organisation level learning through interpretation, experimentation, integration and finally institutionalisation processes.

The feedback loop is based upon a process known as exploitation based learning; this incorporates the use of existing knowledge whereby institutionalised learning directs and influences how individuals and groups behave. These feed forward and feedback learning loops involve movement between the learning processes at different levels and this can cause blockages. This is in part due to the fact that not all individuals can cope with moving from their individual level to group orientated learning with the expectation for sharing and agreeing new ways to progress, including collective insight.

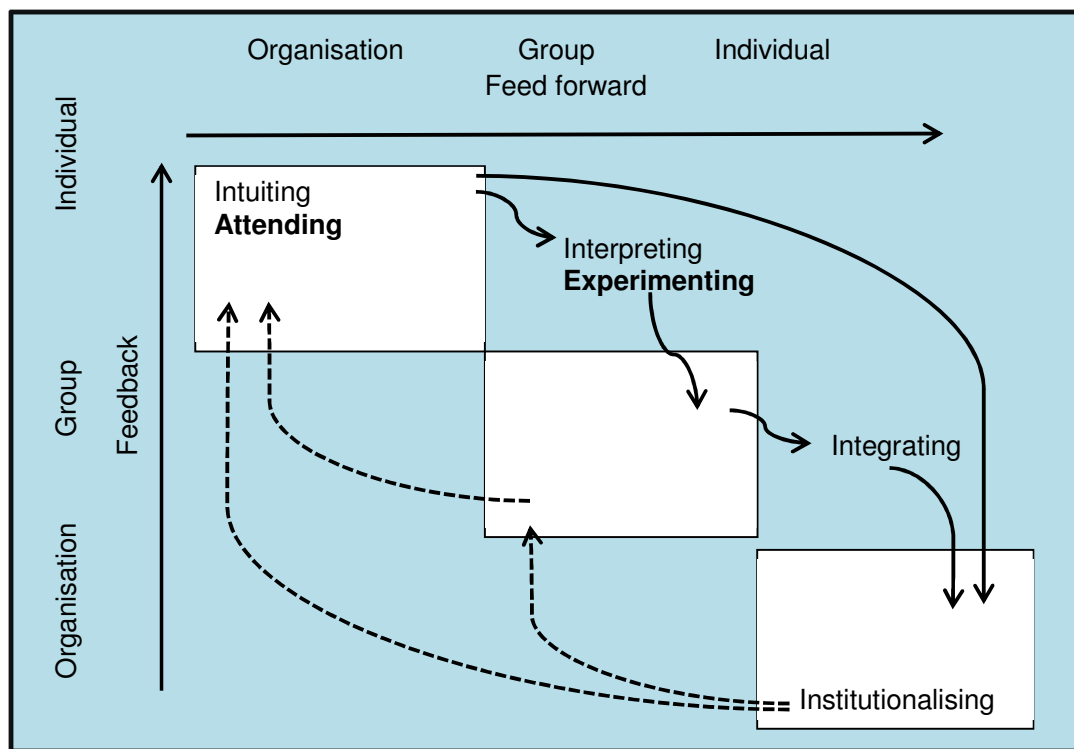


Figure 8 – Organisational Learning as a Dynamic Model (Crossan et. al., 1999).

Crossan et al. (1999) identifies the potential for tension to exist between exploration and exploitation. This is initially caused by the exploration process which can be viewed as a formal interrogation of existing institutional norms that are deeply embedded within the exploitation processes of the organisation. This diametrically opposed positioning can lead to conflict whereby the exploration process is considered to be undermining the very essence of the organisation, thus meeting with considerable resistance.

Whilst accepting the difficulties with attempting to pursue the two learning process concurrently there are an increasing number of published works (Gibson and Birkinshaw, 2004; He and Wong, 2004) which suggest it can be highly beneficial to an organisations innovative competency should they be capable of achieving it. This aptitude is referred to as ambidextrous learning (He and Wong, 2004).

Crossan et al. (1999, p. 534) suggest that: “*learning that has become institutionalised at the organisational level is often difficult to change*”. The potential is that it may lead to an inability to adapt or change through developing a mental attitude that prevents organisations from considering a situation rationally leading to organisational norms remaining unchallenged. This can be exacerbated by institutionalised norms known as ‘*competency traps*’ including processes that may have proven to be successful in past, however they have not been questioned to ensure their validity or effectiveness for present or future needs of the organisation (Bettis and Prahalad, 1995).

Panayides (2007) proposes a conceptualisation based on Figure 9. The proposal suggested is that OL will positively influence relationship orientation and service quality which in turn will have a positive effect on the organisational performance of the provider. This area is of particular interest in organisations where the need for differentiation driven through improved service, quality and performance are used to enhance business proposals for existing and new customers.

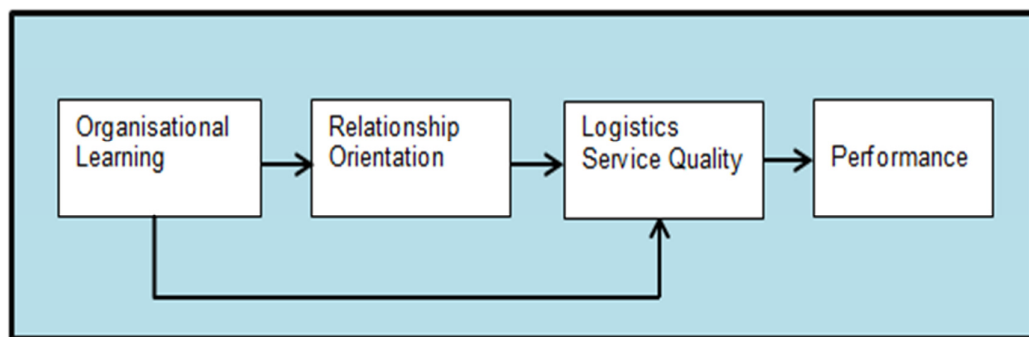


Figure 9 – The Conceptual Model (Panayides, 2007).

OL is an intangible resource instilled within the processes and culture of an organisation. To take this into practice the management must understand the importance of and commitment towards it at all levels. The value of learning through facilitation of training and encouraging employees to work together for common goals, coupled with information sharing that sees critical appraisal as a positive and continuous way to improve, guides the required mindset (Panayides, 2007).

Panayides (2007) defines this suggesting that:

“Organisational learning is promoted through teamwork, auditing of unsuccessful operations and cross-functional communication of lessons learned via specified mechanisms. In addition to the above, in the LSP [Logistics Service Provider]-client relationship, organisational learning can be promoted via information technology that will improve communications and support accelerated sharing of information as well as the performance of post-implementation learning audits” (Panayides, 2007, p. 136).

Relationship orientation refers to the proactive creation, development and maintenance of relationships with customers and other parties that would result in mutual exchange and fulfillment of promises at a profit (Harker, 1999). Huntley (2006) finds ‘*relationship quality*’ to be made of commitment, trust, goal, congruity, technical, social and economic dimensions. It is accepted within the literature that strong relationships between partners in a supply chain lead to a number of beneficial operational outcomes such as reduction of inventory, transportation, ordering and warehousing / handling costs (Mentzer et al., 2001). What has been less effectively researched is the effect of relationship orientation on organisational competencies in logistics, including the ability of logistics service providers to improve the quality of service offered and the consequent impacts on the performance of the organisation (Panyds, 2005).

In a logistics context, customer value is created through two mechanisms, firstly through reducing costs and secondly increasing responsiveness to customers' needs (Araujo et al., 1999). Essential in delivering high quality logistics services are timeliness and responsiveness to customer problems with accurate solutions (Panayides and So, 2005). Taking a holistic view, service quality is a much broader concept than the term ‘*physical distribution*’ covers. Mentzer et al. (2001) introduced aspects such as personnel contact quality, order release quantities, information quality, ordering procedures, accuracy, condition, order quality, discrepancy handling and timeliness in their measurement instrument. Similar, third-party logistics (3PL) service quality studies have included measures such as timeliness, flexibility, accuracy, responsiveness, problem solving ability, and delivering on promises as important service, quality and service performance dimensions (Lai, 2004).

Martin and Metcalfe (2011) suggest that implementing new operating procedures into organisations can be problematic. It requires consideration of the socialisation processes needed to encourage implementers to creatively adopt and adapt the new procedures; this will be particularly evident in regional businesses where cross-cultural and multi-cultural societies are the norm.

Research conducted by Aiman-Smith and Green (2002) demonstrated the problems of trying to implement new systems using formal individual learning. New systems and their corresponding intellectual property can be hard to document in order to make them explicit. Learning often requires all learners to go through similar experiences (Tidd et al., 2001), suggesting that the ability of an organisation to make the best use of new equipment, produce products or skills with novelty in design, quality or performance depends largely on the skills of those involved in adopting the new systems. This refers directly to the present and future identified needs of the respective organisation; additionally they argue that the implementers training needs to provide not only the '*know-how*' but also the essential element of '*know-why*'. This supports the need to learn by performing new skills; the basis for experiential learning.

In an organisational environment this entails learning through apprenticeship style programs, watching and discussing with peers, imitating new skills and adopting them into practice through experimentation (Tyre and Von Hippel, 1997). Martin and Metcalfe (2011) continue this theme suggesting that focusing primarily on what needs to be known; knowledge based instructional learning, may be problematic, whilst the use of socialisation processes in learning may prove beneficial. Dependent on the group or individual dynamics, various communication styles such as storytelling, humour and metaphor are likely to be involved (Hatch and Ehrlich, 1993), with the effectiveness of specific socialisation processes being reflected upon and modified as necessary by the provider of the new skill.

Ragin (1987) developed work completed by Mohr (1982) and distinguishes between process and variance theories in relation to implementation success. The former comprises of a sequence of events or tasks that are required to be completed whereas variance identifies variables that if increased or decreased cause outcomes to increase or decrease accordingly. Variance theories look for cause and effect and this can be typified by suggesting that a change in X will cause a variation in Y. Other variables may interact resulting in an increase or decrease in an outcome. This aligns itself with CI tools whereby Cause and Effect and Design of Experiments (DoE) may be completed as part of the data gathering aspect in projects at DMAIC level.

When applied to project implementation variance theory would help to explain which variations; for example employee job security, levels of motivation or monetary gain cause a variation in the number and / or successful implementation of projects within a given period.

Todorova and Durisin (2007) explain that there is considerable management literature available discussing the use of alternative socialisation processes for encouraging change. A review of management literature by Van De Ven and Poole (1995) found four main explanations of why organisations change: teleology (action emerged from group interaction), evolution, dialectic and life cycles (growth stages). They recommend that all four need to be utilised for successful organisational change.

Martin et al. (2009) used these parameters to group, and subsequently rank, alternative organisational activities in the context of encouraging technological innovation in organisations, particularly Toyota. They advised four corresponding activities of job rotation, benchmarking with CI, competition and the use of champions. Martin and Metcalfe (2011) found that successful implementation was achieved using self-managing problem-solving teams supported by review teams or implementation champions with job rotation and site visits. Both of these variants of socialisation worked; however doing both was not necessary. This may provide a means of identifying an appropriate and realistic mix of organisational socialisation processes that drive success.

Implementation of new procedures may require significant changes in routine and for many the daily routines and rituals employees undertake are the bedrock of how they go about their daily business. Modifying individual and team-based behaviours to take on new routines; often at the expense of previous well-established routines provides its own challenges and the ability to win over the hearts and minds of those expected to implement change [managers] and embrace the new procedures, systems or technical changes [employees] can lead to difficulties. Managers can use their technical power to resist change (Markus and Bjørn-Andersen, 1987), whilst excessive enforcement by change agents [implementers] can demotivate and kill creativity (Weick, 2006).

In relation to CI and OL, benchmarking has been used to identify organisations with industry leading practices with the evolution of organisations learning programmes supporting changing working practices. The term '*best practice*' comes into context here with CI supporting incremental change and this is encouraged through the use of respected colleagues to deliver positive messages. They may be internal to an organisation or from external competitors who are viewed by the market as leading edge. Boer et al. (2000) suggest that in international best practice organisations, applying an OL approach to CI is key to developing products and the strategic processes of the organisation.

Change agents are those who signal the birth of a new idea (Ragin, 1994) and those individuals who have the skill to anticipate the need for and lead productive change can become change champions. This can afford them a level of admiration in others with the potential to positively affect implementation of projects through altering the mind-set of others involved. To achieve this, the champion needs a level of personal appeal / charismatic attributes to act as encouragement to others to behave similarly (Weber, 1997). For this to occur, a change champion needs to be credible in the mind of whoever is going to be influenced, be that an individual or team. When implementing new solutions / systems, this may require the champion to be seen as an exemplar of how to act in response to the solution. This credibility might rely on many things, including past implementation success, monetary rewards or having a particular ethical stance (Martin and Metcalfe, 2011).

One key measure for future success is that of previous success. Past implementation success includes dealing with political processes, resource allocation and technical issues around implementing new solutions and ideas, effectively solving problems generated by significant organisational change. Rost et al. (2007) report that it is a German tradition for new projects to have an idea champion operating at a senior level in the organisation with a technical champion dealing with the technological issues required to make the project successful. There may be some overlap here with the usefulness of self-managed teams and how they work cohesively on a common goal.

The self-managing, multidiscipline, autonomous, team idea developed as an outcome of socio-technical system theory in the 1960's and 1970's. This specifically focused upon the group rather than the individual, sociology not psychology. Its operating mechanism being socialisation processes within the team. These teams do not simply recommend solutions, they implement them. By their nature and size small teams develop stronger social bonds than larger teams with Sexton (1994) suggesting that for effective implementation to take place team members and those setting up the teams need a similar mindset, benefits, managerial faith and a risk-taking attitude. When teams are committed to a project they can be used to champion it.

Martin et al. (2009) saw teams as representing a teleological conception of change; change occurs because of internally generated goals developed by a socialisation process within the group. Where competing teams are working on similar projects and concepts the dialectic tension created can deliver positive results. Competition is viewed as an evolutionary concept and the teams may be seen as realising more than one conception of change concurrently.

Teamwork however cannot be assumed to provide successful outcomes in all circumstances. According to early work by Ringelmann (1913), in Kravitz and Martin (1986), groups may fail to reach their full potential because of various interpersonal processes that can detract from a group's overall proficiency. Motivational loss, or '*social loafing*' as it is otherwise known, is the reduction of individual effort observed when people work in groups compared to when they work alone (Williams et al., 1981). In a similar précis Karau and Williams (1993) define social loafing as the reduction in motivation and effort when individuals work collectively compared with when they work individually or coactively. Latané et al. (1979) found the phenomena to be more common where individual contribution to team effort was not easily identifiable, often caused by an inability to separate team from individual performance.

Ringelmann (1913) suggested that group members tend to rely on their co-workers or co-members to provide the desired effort required for a communal task to be completed. In his experiments male volunteers were asked to pull on a rope, in a tug-of-war scenario, as hard as they could in groups of varying sizes. The test results showed that as the group sizes increased their performance decreased more than would be expected by addition of their collective pulling power. Although group members generally believed that they were contributing at maximum potential when asked, the evidence suggests that members exhibit social loafing even when they are unaware that they are doing so (Karau and Williams, 1993).

In order to reduce the level of social loafing in a group, several ideas have appeared in published literature. A number of these solutions are described as follows:

- **Increase Identifiability:** When people feel as though their individual ideas or outputs are identifiable; for example through evaluation, they are motivated to exert greater effort towards a group task (Harkins and Jackson, 1985). Conversely, social-loafing phenomenon has been found to be more common where individual contribution to the team effort cannot be easily identified (Latané et al., 1979).
- **Minimise Free-Riding:** Individuals who exhibit social loafing typically fail to contribute to standard because they believe others will make up for their reduced performance. Therefore, individual members should be made to feel like they are an indispensable asset of the group. By increasing the perceived importance of their personal roles within the group, members tend to work harder towards achieving group goals (Kerr and Bruun, 1983).

- **Set Goals:** Groups that establish clear, explicit goals tend to outperform groups that have lost sight of their objectives (Harkins and Szymanski, 1989). Setting unambiguous goals is believed to stimulate an array of production enhancing processes, including increased commitment to a group, thorough planning and quality-monitoring of group work, and improved effort (Weldon et al., 1991).
- **Increase Involvement:** Another way to reduce social loafing is increase the level of involvement group members have with the task or goal at hand. This can be achieved by turning the task into a friendly competition between group members, or attach rewards or punishment to the task, contingent on the performance of the group as a whole (Forsyth, 2006).

Recognition can also provide a positive experience for the individual or team with Forsyth (2006, p. 53) stating that: *"giving people responsibility prompts their giving greater thought to their work and thus, very often produces not only greater productivity, but is likely to improve efficiency, quality, indeed any measure that may be involved in being successful"*. In a similar vein, social loafing can also be prevented by convincing individual group members that the goal at hand is important. This is achieved through sharing information that suggests their colleagues are unmotivated to reach the desired goal in a process known as social compensation (Forsyth, 2006).

The effect of social loafing is particularly interesting because it seems to violate both common stereotype and social psychological theory. Common stereotype suggests that the sense of team participation of individuals leads to increased effort, that group morale and cohesiveness spur individual enthusiasm and that by pulling together groups can achieve any goal, that in unity there is strength. Social psychological theory holds that, at least for simple, well-learned tasks involving dominant responses, the presence of other people, whether as co-workers or spectators, should facilitate performance (Latané et al., 1979). It is however, prudent to note that when suitable participants are not available; by skill set or other detraction, teams may not be the best option for successful project implementation in all cases.

Summary of OL

OL is the natural start-point of the CI implementation journey; without an OL approach colleagues' ability to interact with their organisation may be minimal. They will not feel part of the overall entity, having a limited transactional relationship, with the potential to stall any improvement / engagement opportunities identified.

2.4. ORGANISATIONAL FRAMES OF REFERENCE

Organisational Frames Of Reference (OFOR) consist of cognitive elements and operators with reality tests that select, organise and validate information; they are further characterised by a domain of inquiry and manner of articulation and codification (Shrivastava and Schneider, 1984). Expanding on Table 5, the use of subjective personal experiences in some organisations will be classed as a legitimate source of information; in these organisations qualitative data from personal sources are most commonly used for strategic decision making (Wildavsky, 1983). In contrast to this, other organisations use quantifiable, numerical, objective data generated through internal management information systems (Radford, 1978).

OFOR element.	Description.	Example.
Cognitive elements or basic information categories.	Preference for basic assumption types. Preference for experiential bases for driving information. Intellectual commitment in inquiry. Language systems and metaphors.	Subjective, descriptive information vs. numerical information. Technical commitments vs. social. Business as a 'war' or 'game'. Organisation as a 'system', 'organism' or 'machine'.
Cognitive or relational operators.	Methods of ordering and rearranging to make sense/meaning. Cognitive maps, conceptual schemes, models, analytical frameworks	Accounting model of the firm. Intuitive images of problems.
Reality tests.	Guarantee and validate knowledge and processes of inquiry. Express the legitimizing connection between organisational events and social sanctions.	Personal experience 'Edict' from leaders. Empirical studies. Organisational rules. Decision rules.
OFOR characteristics.	Description.	Example.
Domain of organisational inquiry.	Map of legitimate concerns Concept of organisation – environment and organisation – member relationships.	Self-identity and organisation culture. Social role of organisations.
Articulation and codification.	Extent to which assumptions are shared, codified and objectified.	OFOR's specified in organisational; policies and plans. OFOR reflected in myths, rituals, ceremonies etc.

Table 5 - OFOR Elements and Examples (Shrivastava and Schneider, 1984)

Cognitive or relational operators are methods by which information is ordered and rearranged to make mass organisational data manageable and understandable for the inquirer. The operators include cognitive maps and conceptual schemes or frameworks which are utilised by managers when formulating problem solving strategies (Weick, 1979). Problem solving may follow formal process, embedded within organisations standard operating processes, or alternatively follow informal experiential decision-making practices based upon generally accepted practices.

Relational operators are also used to specify methodological rules of inquiry for resolving organisational problems; however the terms of reference need to be understood to support the validity of the desired outcomes. There are varied approaches from abstract and intuitive means supporting problem solving practices to explicit, structured data driven techniques.

The language used in organisations often includes technical and business specific vocabulary, for example financial terminology, to carry out their business effectively. This can exclude those who are not '*au fait*' with the language leading to little or no engagement and is a watch-out for organisations that may miss this and deliberate as to why their employees are not as engaged as they might be. In the technical world, the use of technical language can be used to exclude those viewed as less technical, tacit-based in approach and supports an objectivist view to learning as in Bell (1973).

An essential component of OFOR are reality tests. They provide a process for validating differing elements of OFOR that result from organisational inquiry. They are used to legitimise processes of inquiry by expressing their connection with past experiences and practices within an organisation. Hedberg (1981) supports Shrivastava and Schneider (1984) view suggesting that reality tests anchor organisational actions and decisions in experiential '*roots*' affording a '*truth* or '*reality*' status derived from OL.

By comparing present situations with the past; both inside and outside of the organisation, members define their view on organisational reality. Situations that fall outside the reality tests are deemed less '*real*' and this provides a framework for future validity of processes and procedures. They can take many forms from empirical testing of validity, consensus among strategic decision makers to personal edicts from organisational leaders.

The domain of inquiry for OFOR (Shrivastava and Schneider, 1984) is defined in terms of three basic dimensions as:

- 1) An organisations definition of itself or organisational identity. All organisations have an identity and image to define their overall goals and targets. It may not be fully explicit; however it will guide the future of product market domain for current operations, future growth strategies, the social identity of the organisation and the definition of its role in a broader social context.

- 2) The definition of individual-organisational relationships. Organisations implicitly define relationships of individual members in relation to subgroup level, department level and organisational level. These relationships moderate the opportunity for conflict to develop between individual and group interests. By example some organisations treat their employees as family members, whilst others give them impersonal and official titles. Schein (1980, p. 52) details the management philosophy offering a perspective regarding employees and how their relationships with organisations are defined.
- 3) Definition of organisation-environment relationships. Organisations stance toward their environments define problems that become relevant for inquiry. Although most organisational inquiry is constrained within the boundaries of these parameters, the boundaries can be unclear and implicit. They require continuous renegotiation in strategic decision making situations particularly if the problems at hand are novel or ill-structured (Mitroff and Emshoff, 1979).

Another important characteristic of OFOR is the way in which they are shared amongst members. The explicit methods of articulation and codification are statements driven by formal strategies and policies. Thus the explicit statements describe the fundamental goals and mission of the organisation. Areas such as work-based procedures, performance evaluation and reward mechanisms for the varying functions including marketing, financial, manufacturing and human resource policies fall into this category (Shrivastava and Schneider, 1984).

OFOR can also be articulated implicitly and codified through myths, stories and rituals (Mitroff and Kilmann 1975). There are communicative leaders who experience success through storytelling. Stories represent and shape organisational culture and support resolution in ambiguity by providing meaning (James and Minnis, 2004). They work to change beliefs and behaviours through cognitive and emotional processes. By exemplifying and dramatising company values, systems, and norms, stories generate commitment. Swap et al. (2001, p. 10) comment that:

“Stories that dramatise or illustrate managerial systems, values, and norms are more likely to be believed and acted upon than mere statements of policies and norms. Therefore, managers should mine organisational lore for stories that support the goals and mission of the organisation”.

When leaders harness the transformational strength of language to motivate and inspire, they will likely conclude that organisational storytelling makes sense and continue to embrace its effectiveness. Stories about how an organisation handled a competitive threat, survived or prospered through a recession, advanced a new product or developed a valued employee help to reaffirm an organisation's picture of itself (Schein, 1985). This insight passed down from current organisational leaders may help to simplify future decision-making and be used as point of reference when a key decision is imminently required, guiding the organisation to more success in the future through improved decision making.

OFOR operate to explain what happens inside and outside the organisational spectrum. Through OFOR actions are understood, events are perceived, categorised and given meaning and as a result of this decisions are made and actions generated (Starbuck, 1983). In this manner OFOR creates a filtering mechanism through which future events can be screened and checked for suitability creating a self-perpetuating system. Shrivastava and Schneider (1984) provide an overview of this process (illustrated in Figure 10).

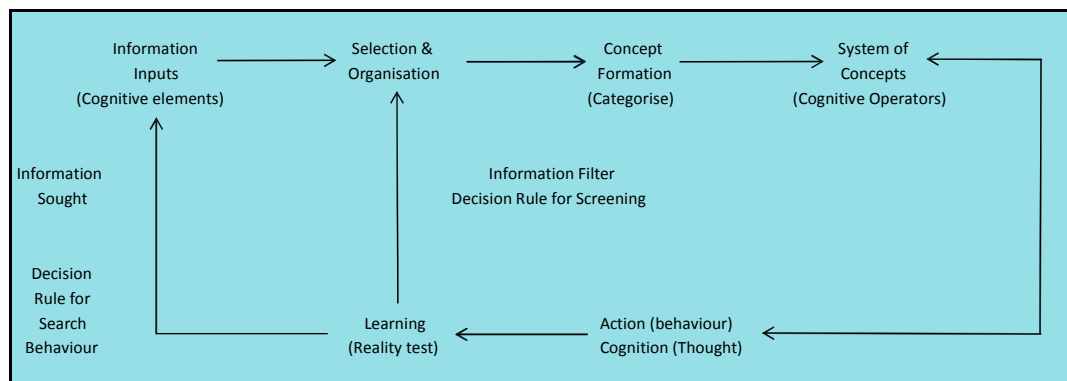


Figure 10 - Information Processing by Organisations (Shrivastava and Schneider, 1984).

Implicit OFOR are organisational culture and ideology with influence over fundamental strategic decisions. Dunbar et al. (1982) describe functions of ideologies as enhancing members' commitment to an organisation, defining guidelines to facilitate task completion allowing for clarity in goal setting and effective use of resources. They also protect organisations from information overload by screening out unnecessary information and reduced uncertainty. The inherent differences in organisations caused by industry sector, environment and technology create a natural diversity, however OFOR transform this generalised variance into uniqueness of the organisation.

OFOR facilitate the development of distinctive cultures and identity for organisations and systems of control; they provide a stable framework through which members are able to interpret their own organisational world and support it. In summary they provide a means to explain and help define organisational boundaries. They set rules for developing behaviours and create a context in which decision making and action are possible (Shrivastava and Schneider, 1984).

Marshak and Grant (2008) argue that organisational dialogue provides a useful theory and research base for aspects of new organisational practices enabling those using these new practices to better recognise and engage the power and political processes inherent in organisational change. They believe that the field of organisational discourse has an important contribution to make with respect to lengthy interventions and organisational change. Engaging in discursive activity such as conversation, narrative and dialogue in order to frame new shared meanings and change mind-sets is a principal means to create change in organisations (Ford and Ford, 1995).

Summary of OFOR

The ability to recognise an organisational ethos goes much further than a corporate mission statement and successful organisations have been able to identify with their colleagues through OFOR, a natural progression from OL.

2.5. LEARNING ORGANISATIONS

The literature review of OL revealed one topic area causing much debate and conflicting opinions. The area in question is the '*learning organisation*' (LO). Peter Senge (1990) and Mike Pedler (Pedler et al., 1997) fall into the visionary category and see the LO as an attainable archetype having the potential to bring major benefits to the organisation and their employees. The alternative viewpoint, largely consisting of academics with Coopey (1998) identified as a decisive voice, suggesting that learning organisations work under the auspices of supporting the self-development of their employees; however they are in actual fact reinforcing the power of management, leading to exploitation and control over employees.

The terms '*organisational learning*' and '*learning organisation*' are sometimes used interchangeably however they are distinctly different in meaning (Tsang, 1997). OL is a concept used to describe certain types of activity that take place in an organisation where the embedding of individual and group level learning form part of the organisational structure and processes. In contrast to this a LO refers to a particular

type of organisation which supports the learning and expression of its workers through experimentation, managed risk taking and open discussion, delivering success to the organisation. Tsang (1997) proposes that there is a simple relationship between the two in that a LO is one which is good at OL. Pedler et al. (1997, p. 3) define the LO as: *“An organisation which facilitates the learning of all its members and consciously transforms itself and its context”*. Their framework is comprised of eleven specific characteristics (detailed in Table 6). The classifications rely upon the supposition that a mutual, positive interaction is in place between the organisation and the on-going learning of its staff.

Focus	Core Characteristics	Description
Strategy.	1. Learning approach to strategy.	Strategy making / implementation / evaluation structured as learning processes – for example with experiments and feedback loops.
	2. Participative policy making.	Allow all organisational members opportunity to contribute to making of major policy decisions.
Looking in.	3. Informating.	Use of IT to empower staff through widespread information dissemination and having tolerance to how it is interpreted and used.
	4. Formative accounting and control.	Use of accounting practices which contribute to learning combined with a sense of self responsibility, where individuals / groups encouraged to regards themselves as responsible for cost management.
	5. Internal exchange.	Constant open dialogue between individuals and group within an organisation, and encouraging collaboration not competition.
	6. Reward flexibility.	New ways of rewarding people for learning contribution which may not be solely financial, and where principles of reward system are explicit.
Structures.	7. Enabling structures.	Use of loose and adaptable structures which provide opportunities for organisational and individual development.
Looking Out	8. Boundary workers as environmental scanners.	The bringing into an organisation of ideas and working practices developed and used externally – an openness and receptivity to learning from others.
	9. Inter-company learning.	Use of mutually advantageous learning activities with customers, suppliers etc.
Learning opportunities	10. Learning climate.	Facilitate the willingness of staff to take risks and experiment, which can be encouraged by senior management taking the lead. People not punished for criticising orthodox views.
	11. Self-development opportunities for all.	Have opportunities for all staff to be able to develop themselves as they see appropriate.

Table 6 - The learning company framework (Pedler et al., 1997).

Developing this further reinforces the position that learning organisations who develop their staff see the reciprocated benefit of their learning through contribution to the ongoing sustainability and transformation of the organisational framework. Advocates such as Pedler et al. (1997) believe that the benefits of the LO go beyond the recognised constituent of improving organisational performance. They suggest management and workers will benefit with the demarcation between them becoming less evident supporting an environment where workers realise increased levels of participation in major decision making processes through offering opinions that are truly valued and taken into account.

A particular leadership style in a LO is seen as necessary and central to the creation of the desired working environment (Sadler, 2001). Leaders should be learners and coaches promoting the development of employees through mentoring. This contributes to leaders becoming sensitised to the opinions of workers supporting a responsive attitude to their opinions thus encouraging interest in workers who see true engagement from their organisations leaders.

Kolb's Learning Theory depicted in Kolb and Fry (1975) set out four distinct learning styles, which are based on a four-stage learning cycle (see Figure 11).

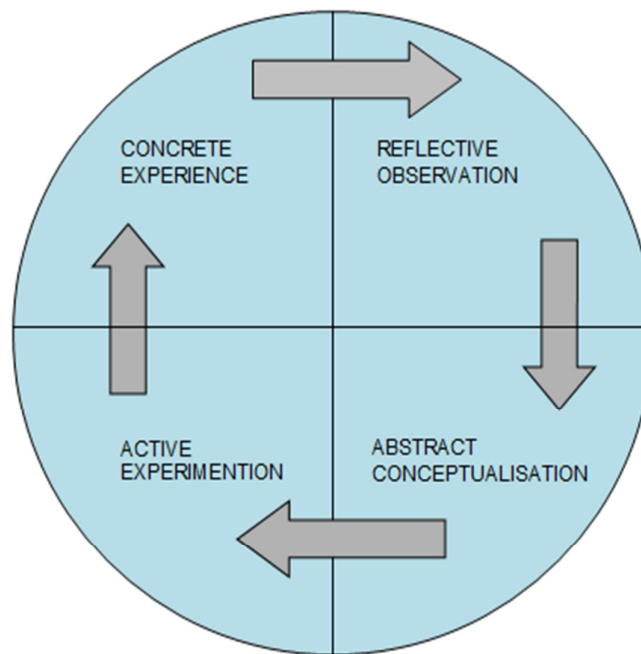


Figure 11 - Kolb and Fry's Learning Cycle (Kolb and Fry, 1975).

Kolb (1984) states that ideally, although not always achievable, this process represents a learning cycle where the learner is in a cycle of experiencing, reflecting, thinking, and acting. Immediate or concrete experiences lead to observations and reflections. These reflections are then assimilated into abstract concepts with implications for actions, which the individual can actively test and experiment with, and in turn enable the creation of new experiences. Kolb's model works on two levels, a four-stage cycle:

- Concrete Experience - (CE)
- Reflective Observation - (RO)
- Abstract Conceptualisation - (AC)
- Active Experimentation - (AE)

This leads to a four-type definition of learning styles, each representing the combination of two preferred styles, rather like a two-by-two matrix of the four-stage cycle styles, as illustrated below, for which Kolb used the terms:

- Diverging (CE/RO)
- Assimilating (AC/RO)
- Converging (AC/AE)
- Accommodating (CE/AE)

The above processes focus on teaching the learner how to learn rather than what to learn. Kolb's model was further developed by Gibbs (1988) (see Figure 12).



Figure 12 - Gibbs Reflective Cycle (1988).

Gibb's reflective cycle is self-explanatory, through being more descriptive it has the effect of restricting the user to consider only the points suggested. It encourages reflective practice by asking questions at the six identified stages (identified in Table 7). Jasper (2003) developed this commenting that Gibb's Cycle guides you through the stages of reflection by asking a series of cue questions.

1	Description	Describe the situation or event. Don't make judgements or try to draw conclusions. Simply describe.
2	Feelings	What were your reactions and feelings? Don't analyse at this stage.
3	Evaluation	You evaluate the experience by considering what was good and bad about the experience.
4	Analysis	Use analysis to make sense of the experience and to state what was learned about the event. Bring in ideas from outside the experience if helpful. Is your experience similar or different from others?
5	Conclusion	What can be concluded? Consider what you could have done differently or in addition to in your way of working.
6	Action plan	What would you do differently in this type of situation if it occurs again. What steps would you now take on the basis of what you have learnt.

Table 7 - Gibbs Reflective Cycle (1988).

Summary of LO

The ability of organisations to promote learning for colleagues, leading to tacit and explicit knowledge sharing leads to a positive LO approach. The value to the organisation and colleagues from a growth perspective, often has intangible value as colleagues who grow with the organisation are likely to display a more positive outlook towards the organisation, than those who haven't had the opportunity.

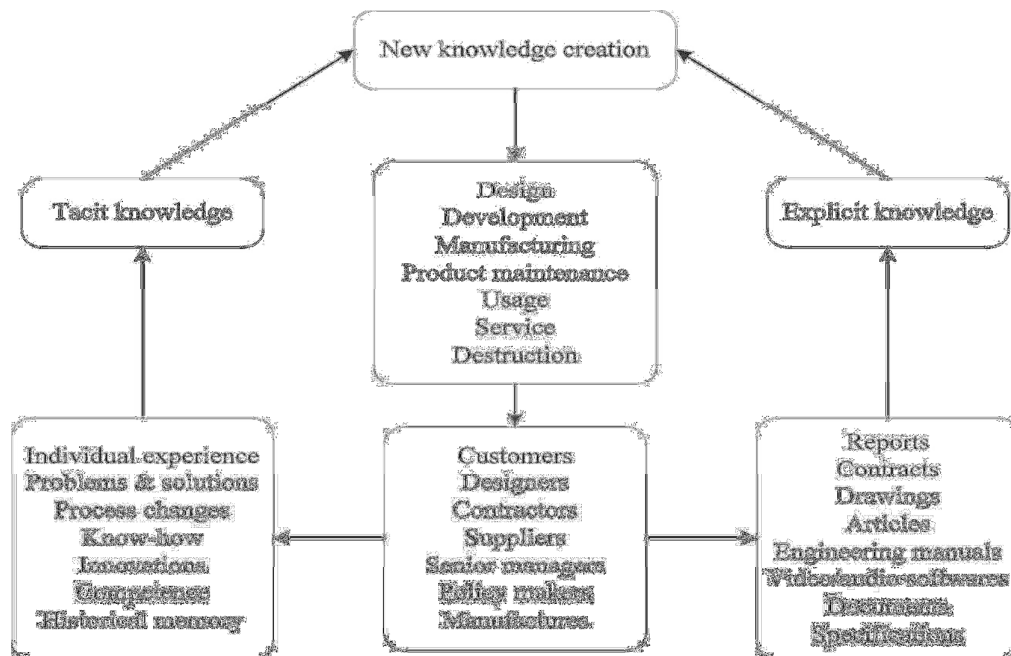
2.6. KNOWLEDGE MANAGEMENT

"If HP knew what HP knows, we would be three times more profitable"

(Lew Platt, former CEO of Hewlett-Packard, cited in Frappaolo, 2006, p. 2).

The link between OL and Knowledge Management (KM) provides a further area requiring probing to understand the potential shortcomings in KM practices and how this relates to the OL capability of an organisation and subsequent business performance. Bognor and Bansal (2007) conducted research exploring the link between a business's ability to create and utilise knowledge and business performance. The resulting data suggested that strong links with performance were evident, with a secondary outcome suggesting organisations could '*recycle*' new knowledge and use it to support future business improvement opportunities.

Organisations pursuing KM as a business strategy believe KM is central to their ability to grow and compete (O'Dell et al. 1999). These organisations rarely need to make a business case for the concept and often have a formal '*knowledge champion*' in place. Significant resources are embedded in all areas of the business to ensure that ever-improving knowledge is accessible to and through their people, processes, and products. In these organisations knowledge is viewed as a tangible product with the principle that it will have a significant impact on the profitability and viability of the organisation. The approach is pursued either by integrating it with the overall business strategy or by treating it in parallel with other strategies. Tyagi et al. (2015) created a schematic representation (see Figure 13), depicting what they classed as knowledge creation in the real world.



Nonaka's (1994) theory of knowledge creation has developed over a number of years individually and also through collaboration with other authors' broadening in scope to include leadership styles, organisational forms and strategy. Nonaka's Socialisation, Externalization, Combination and Internalization (SECI) knowledge creation process has remained relatively constant (detailed in Figure 14). Nonaka makes a fundamental distinction between tacit and explicit knowledge in his model of knowledge creation as it is the continuous interaction between tacit and explicit knowledge that creates new knowledge (Nonaka, 1994).

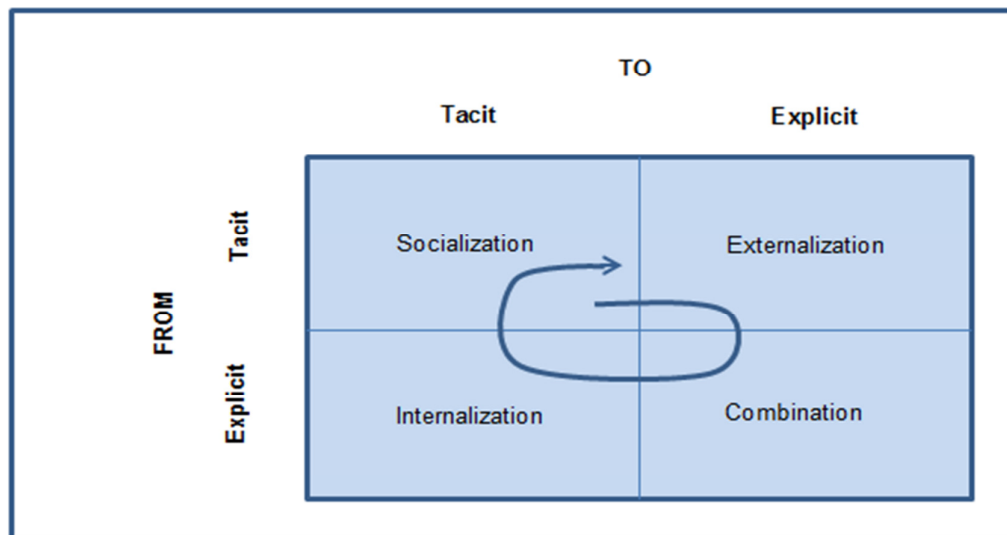


Figure 14 - SECI model of knowledge creation (Nonaka, 1994).

Lew Platt, a former CEO of Hewlett Packard commented that: *"Knowledge management is all that there is in our company. We live and die on our intellectual property...acquiring knowledge quickly...moving it around the company very quickly ...it's all about knowledge transfer; starting with the customer"* (Sieloff, 1999, p. 53).

Employees are the ultimate source of new knowledge in an organisation and they are responsible for their own knowledge development. Expecting people to take personal responsibility for their own knowledge and the knowledge the firm entrusts to them is essentially an example of a 'pull' strategy, initiated by the individual rather than pushed by the organisation (O'Dell et al, 1999).

An example of this strategy was found at Skandia AFS. KM was the responsibility of everyone at the company and was embedded within their roles. Their IT employees focused on packaging knowledge into software products that supported knowledge sharing whilst accounting colleagues were responsible for developing indicators to

measure KM activities. There was no specific time allotted to KM activities as KM was viewed as a philosophy of working. Furthermore the company did not support a hierarchical approach; its culture was one of high trust that fostered shared learning and emphasised self-management and support of initiators (O'Dell et al., 1999).

A further example found that best-practice partner Price Waterhouse Cooper had made KM a component of every one of its business strategies. The need for knowledge and timely information sharing was recognised by senior leaders as a key business offering for them; creating and leveraging it was a necessity to remain competitive. This was driven by the global nature of the company's practice and the requirement for effective transfer of knowledge to wherever it was needed. In essence KM was viewed by them as a fundamental business matter, a factor that fostered high-level buy-in for the approach (O'Dell et al., 1999).

In Table 8 below, knowledge is created by the conversion of tacit knowledge into new forms of tacit knowledge referred to as socialisation and the conversion of tacit knowledge into explicit knowledge, known as externalisation. Explicit to explicit knowledge forms the next category of knowledge creation defined as combination and finally explicit to tacit knowledge is referred to as internalisation (Nonaka, 1994).

	Socialisation	Externalisation	Combination	Internalisation
Knowledge conversion type.	Tacit to tacit.	Tacit to explicit.	Explicit to explicit.	Explicit to tacit.
Illustrative example.	Where a new member of a work group acquires the tacit knowledge possessed by other group members through dialogue, observation or co-operative working.	Where an individual is able to make their tacit knowledge explicit, for example through a process of communication and dialogue with others.	The linking together of discrete bodies of knowledge, to create a more complex body of knowledge.	Where an individual converts explicit knowledge into tacit knowledge, through applying it to their work tasks.

Table 8 - SECI Knowledge Conversion (Nonaka, 1994).

Organisations pursuing KM as a business strategy rarely need to make a business case for following their initial concept of KM, although they do justify capital or revenue expenditures such as IT software development as any organisation would. Revenue enhancement, cycle-time reduction, and reuse of knowledge were the driving forces behind one company's KM initiatives, Sequent Computer Systems. They designed their KM programs to influence these macro business variables positively, materially affecting the company's top-line revenue and earnings per share.

In Daniel Bell's influential book, (Bell, 1973 cited in Hislop, 2009, p. 5) '*The Coming of Post-Industrial Society*', Bell commented that a: "*Post-industrial society was; a society where the service sector is dominant and knowledge based goods / services have replaced industrial, manufactured goods as the main wealth generator*".

Bell suggested that the move towards more information and knowledge intensive industries, such as the service sector, would replace manufacturing industries as a key area of wealth generation. Bell continued suggesting that knowledge and information would play a much more significant role in economic and social life than within the industrial society as he argued that work in the service sector was significantly more information and knowledge intensive than industrial work. Bell's analysis supported an advancement on the previous industrial societies as in general more wealth would be created leading to workers having more fulfilling jobs. He felt that unpleasant, repetitive jobs would decline significantly and social inequality would reduce, with the added benefit of all having more disposal income to spend on personal services with a general feeling of well-being being present.

Bell's final suggestion was that there had been a quantitative increase in the role and importance of knowledge and information culminating in a change in the type of knowledge deemed as most important to theoretical; representing abstract knowledge and principles which are capable of being codified or at least embedded in systems including rules and frameworks. This apparent change from the importance of tacit knowledge and skills to explicit is explored further within the literature review, however it is broadly accepted that systematic KM is tightly linked with gaining and sustaining competitive advantage (Bognor and Bansal, 2007).

Deeper interrogation into literature presents an interesting assumption that Bell and other post-industrial theorists applied in that they combine knowledge work with service sector employment for their [loose] argument. All non-manufacturing and agricultural employment were labelled under the same banner including roles from consultants, marketing executives to milkmen. Whilst some service roles such as consultancy and research do afford the title of knowledge intensive, other types of service work including security, office cleaning and fast food restaurant work is low-skilled, repetitive and routine (Thompson et al., 2001).

The literature does offer an argument for the increase in managerial and professional work (Fleming et al., 2004) however this increase is offset by a similar proportion of growth in low skilled, service oriented work (Thompson et al., 2001). This supports

Mansell and Steinmueller (2000, p. 403) who suggest: “*There is an increasing polarisation between highly skilled and highly paid jobs to lower skilled and lower paid jobs*”.

Privileging of theoretical knowledge over tacit knowledge is also evident within the literature review and this had led to disputes in how to classify certain roles against knowledge work criterion. The attempt of post-industrialism society to [forcibly] underestimate the knowledge required to complete routine, manual work appears to be led by an inability to accept that the expected change to more managerial and professional work has not materialised as expected (Hislop, 2009).

Summary of KM

KM is a key area for an organisation to drive business success, however it may be less visible and / or relevant to colleagues unless the organisation drives the positivity of the preceding steps indicated. Leading organisations treat KM as a tangible asset and maximise the value from this approach in how they manage their businesses.

2.7. INNOVATION

A simple definition of innovation is: “*the deliberate modification, or transformation, by an organisation of its products / services, processes or structures*” (Hislop, 2009, p. 114).

Organisational innovation covers a multitude of areas and the scope can change from small changes to large-scale projects across products and services, or alternatively process focused affecting organisational structures. Whilst the size and scope may differ the general principles remain similar. A model known as the ‘*stage model theory*’ comprised of a number of logical discrete steps, however this model did not take into account the complexities and inter-relation between stages of complex products (Swan et al., 1999) and published works from 1990 onwards have moved to an innovation model consisting of three closely, inter-related characteristics, see Figure 15, (Hislop, 2009).

The detail required to develop a project and visible blurring between design and implementation stages can produce important changes to the characteristics of the planned innovation being implemented (Swan et al., 1999). The key element is understanding that innovation can typically be interactive in nature requiring support between organisations, groups and individuals if it is to be successfully implemented.

Sharing or having common knowledge will be necessary, collaboration between organisational communities that may be from divergent cultures or have differing values may be required and social relationships based on trust will have to be built.

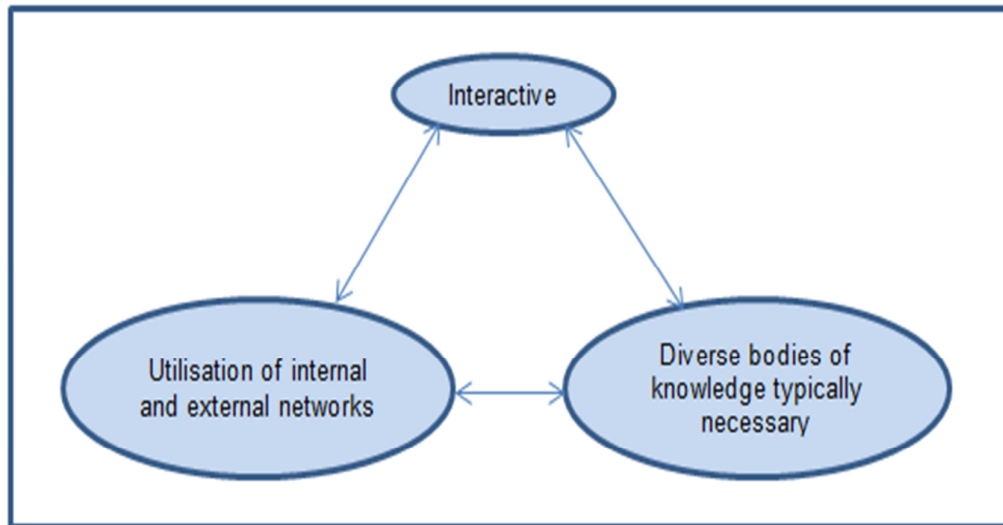


Figure 15 - Key Characteristics in Contemporary Conceptualisation of Innovation Processes (Hislop, 2009).

With the additional complexity of sharing tacit, context specific knowledge the overall set of parameters for implementation of innovation becomes complex in nature, thus requiring the skill-set of the innovation leader to support these demands (Hislop, 2009). Damanpour (1987, p. 676) suggested that: “*Innovation introduces change into the outputs, structure, or processes of an organisation*”. Innovative environments allow organisations to maximise the potential of their employees; this is essential when physical and financial resources are scarce and external environments are challenging and competitive (Axtell et al., 2000). The short-term effects of process management activities on innovation may also have longer-term ramifications for exploratory innovation. Innovative activities in a previous period can have important effects on an organisation's decisions for future innovation ideas by providing a knowledge base that can rapidly absorb competence from external sources (Levitt and March, 1988).

Studies have shown that employees working in innovative organisational environments demonstrate a higher level of job satisfaction, motivation, activity, and organisational commitment; they are also more excited about the importance of their work and willing to take the risks needed for change (Dee et al., 2002). Employee commitment and engagement can only be truly obtained when employees feel comfortable to discuss

ideas with managers [empowerment] where fear of retribution, however that may be perceived, is actively discouraged when taking risks in the spirit of driving change. Tom Kelley, General Manager of IDEO comments that: “*The ultimate freedom for creative groups is the freedom to experiment with new ideas. Some sceptics insist that innovation is expensive. In the long run, innovation is cheap. Mediocrity is expensive- and autonomy can be the antidote*” (Kelley, cited in Pink, 2009, p. 58).

Hansen (1999) found that the complexity of knowledge could have a significant impact on innovation processes. He defined complexity in terms of the degree of tacitness and inter-dependence of knowledge; thus if knowledge is highly inter-dependent a full understanding is not possible without a level of understanding of related knowledge. This drove the conclusion that complex knowledge is therefore highly tacit and concurrently inter-dependent. Dee et al. (2002); Hansen (1999) support the view that the sharing of complex, innovative knowledge is most effective when strong relationships, based on trust, existed between those involved as the sharing of such knowledge requires extensive interactions.

Summary of Innovation

Innovation leads on from KM in that progressive organisations complete the journey from CI [best practice knowledge sharing] to innovation as a natural progression whereby KM depositories store explicit and tacit knowledge key to the CI-innovation transition. KM may be less significant to the general colleague population, however it is recognised that an engaged group can deliver innovative solutions.

2.8. TRUST

Trust is a necessary condition for cooperative behaviour between individuals, groups and organisations (Jones and George, 1998). Hansen (2002) explored knowledge sharing behaviours in innovation processes involving collaboration between different organisational businesses and found that the quality of the knowledge sharing was affected by two parameters. Firstly, the closeness of the relationship between network partners and secondly the relatedness of their knowledge; if only a limited amount of knowledge was shared the process could become a complex and difficult one to develop successfully.

Closeness of relationship and trust become congruent expectations with regards to knowledge sharing. Andrews and Delahaye (2000) conducted a study into the key elements of how a group of scientists made decisions as to what knowledge they would

share. One outcome was that personal knowledge is a valuable commodity that should not be shared casually and when faced with decisions about what knowledge to share and with whom; in this example professional scientists, they made distinct judgements about the trustworthiness of their peers. The role of trust was pivotal and without it, irrespective of any formal knowledge-sharing requirements being in place, colleagues would not share their knowledge.

One interviewee from the study made the following comments: *“If you haven’t got trust and confidence then it doesn’t matter what else you’ve put in place, or what other structures you put in place to try and encourage cooperation, it’s not going to happen”* (Andrews and Delahaye, 2000, p. 804). The concerns were around visibility and ownership of knowledge and how it might be used. If those involved in sharing knowledge had a high confidence level in the integrity of the recipients they would share knowledge, correspondingly they would not share with those deemed untrustworthy and where they might act inappropriately with the knowledge expected to be shared.

There are numerous models within published literature relating to trust, the different forms that exist and how it is developed over time. Newell and Swan (2000) provided a three-dimensional typology (see Table 9 below) indicating a number of published authors’ perspectives tying into the common headings of Companion, Competence and Commitment trust.

Authors	Companion trust	Competence trust	Commitment trust
Sako (1992).	Belief in goodwill.	Belief in competencies.	Contractual agreement.
Shapiro et al. (1992).	Identification based.	Knowledge based.	Deference based.
Jones and George (1998).	Emotions and moods.	Attitudes.	Values.
Ring and Van de Ven (1996).	Resilient trust.	Fragile trust.	-
Meyerson et al. (1996).	-	Swift trust.	-

Table 9 - Links between previous Typologies of Trust and Companion, Competence and Commitment Trust (Newell and Swan, 2000).

This typology is not a new definition or withdrawal from existing literature; it simply pulls together the typologies that already exist. This is possible because of the similarity between published authors in terms of the types of trust which they distinguish. They are summarised below (Newell and Swan, 2000):

Companion trust: refers to trust that is based on judgments of goodwill or personal friendships, resting on a moral foundation that others will behave in a way that does not harm other members of the network. The parties will expect each other to be open and honest. Such trust will be process-based developing over time as people get to know each other personally, possibly becoming friends, through continuing and reciprocal exchange. This trust should be slow-forming and resilient. It has a strong emotional component and is important for the maintenance of social networks. Partners should be relatively tolerant of others' [well-intentioned] mistakes. However, if eventually broken, this trust is also likely to cause the greatest rift between the parties involved.

Competence trust: this trust is based on perceptions of the others' competence to carry out the tasks that need to be performed and will be important where the skills needed to perform a task are not able to be found within one person. In other words, competence trust is based on an attitude of respect for the abilities of the trustee to complete their share of the job at hand. The truster feels that they can rely on the trustee. The development of this form of trust thus relies on perceiving the competencies of the other partners.

This may not necessarily need to occur through interpersonal exchange; competence judgments can also be driven by contextual cues such as the reputation of the institution or the status of the professional group to which the person belongs. This type of trust can therefore develop much more swiftly but it is also likely to be more fragile since, if the trustee does not quickly demonstrate the competencies that were expected, the trust breaks down. Competence trust may be important for both bureaucratic and proprietary networks in which there are relatively formal expectations about the contributions to and roles of particular individuals in the network.

Commitment trust: this trust stems from the contractual agreements between the parties. In this case, the trust is developed on an institutional basis. Each party is expected to gain mutual benefit out of the relationship, and so can be relied on to be committed to deliver according to the details of the contract. This kind of trust will be central in proprietary networks where financial, property or intellectual rights of the network relationships are, at least partly, defined. The contractual agreement exists to foster commitment trust which will facilitate co-operation.

While the contract itself embodies formal obligations on the part of the signatories, the important element, as regards risk and uncertainty, is that it allows those involved to believe that those others with whom they are working will demonstrate commitment

trust. In essence, that others can be trusted to put in the effort necessary to complete the joint work. This commitment trust means that only rarely will the contract itself be used to settle conflicts between the parties. Indeed, resorting to the contract would be a sign that the commitment trust had broken down. In this way, trust is developed on the back of formal societal structures, which therefore reduce the risk of trust and make it acceptable.

This type of trust falls somewhere in-between the first two in terms of how resilient it is. It is more resilient than competence-based trust because the contractual agreement underpinning commitment trust will still encourage a continuation of the alliance; even if those involved stop respecting each other's abilities, as they know they can resort to *'the contract'* if all else fails. However, it is not likely to be as resilient as goodwill or companion trust and partners that fail to demonstrate their commitment by delivering their share of the work on one contract are likely to be dropped from any future joint collaborations.

Summary of Trust

Without trust those with knowledge are unlikely to share with colleagues or other stakeholders; be that a shop-floor colleague to line manager or project manager to consultant. Developing trust is fundamental as to how we make decisions, as to what to share and with whom and those using processes and systems will not be able to circumnavigate a lack of trust. Organisational culture depends upon trust between people and their organisation, such a culture is diverse, multi-faceted and inter-twined, and without trusted relationships leveraging business advantage may be problematic. Trust is an enabler of colleague openness and the ability to tap into the knowledge of colleagues through understanding their respective cultures and behaviours, shared beliefs and values drive the desired behaviours and outputs.

2.9. CULTURE

The word culture is based on the Latin *'Cultura'* and published literature provides numerous definitions that relate to the behaviour and beliefs of a particular period, class, community or population. The term culture; as applied to human societies or groups, has its origins in the discipline of anthropology (Hofstede, 1991) and the notion of an organisational culture grew in relevance in management literature three decades ago. Geert Hofstede (1994, p. 5) is recognised for his work regarding culture and he defined it as: *"the collective programming of the mind which distinguishes the members of one group or category of people from another"*.

Schein (1985) comments that most of the writers on organisational culture use different definitions and methods of determining what they mean by culture and different standards for evaluating how culture may affect organisations. Baron and Walters (1994) observe that cultural theorists struggle to agree on the nature of corporate culture and review of available literature suggests that there appear to be as many definitions of culture as there are writers on the subject. Organisational culture may be defined as a common set of values and beliefs that are shared by members of an organisation which influences how people perceive, think, and act (Schein, 1990).

In attempting to find a précis Ravasi and Schultz (2006); Schrodtt (2002); Cleland, (1994) and Deal and Kennedy (1982) suggest organisational culture incorporates:

- The environment of beliefs, customs, knowledge, practices, and conventionalised behaviour of a particular social group.
- An understanding of the ways an organisation conducts its business, treats its employees, customers, and the wider community.
- The pattern of collective behaviours and assumptions that are taught to new organisational members as a way of understanding the organisation.
- A set of shared assumptions that guide what happens in organisations by defining appropriate behaviour for various situations based on shared attitudes, beliefs, customs, and written and unwritten rules developed over time.
- An organisation's expectations, experiences, philosophy, and values that hold it together, and is expressed in its self-image, inner workings and interactions with the outside world.
- The extent to which freedom is allowed in decision making, developing new ideas, and personal expression, including how committed employees are towards the goals of the organisation.

Garrison and Rees (1994) suggest that many European Managers have a total lack of understanding in relation to the essence of diverse managerial approaches required in differing countries. Perhaps more significantly they have very little understanding of the ideological values and macro-systems that put into context the business culture of a specific country. Cross-cultural teams may be complex within their structure, including wide behavioural distinctions. Differing legal requirements, time zone and language barriers can add to the cultural differences of varying nationalities.

The diverse cultures and values of the personnel involved within cross-cultural teams can not only lead to conflict, but the methods of dealing successfully with conflict may also vary between cultures. Figure 16 illustrates an overview of the complexities involved with divergent cultures and suggests that there are numerous areas requiring consideration if culture is to be understood and leveraged in an organisation.

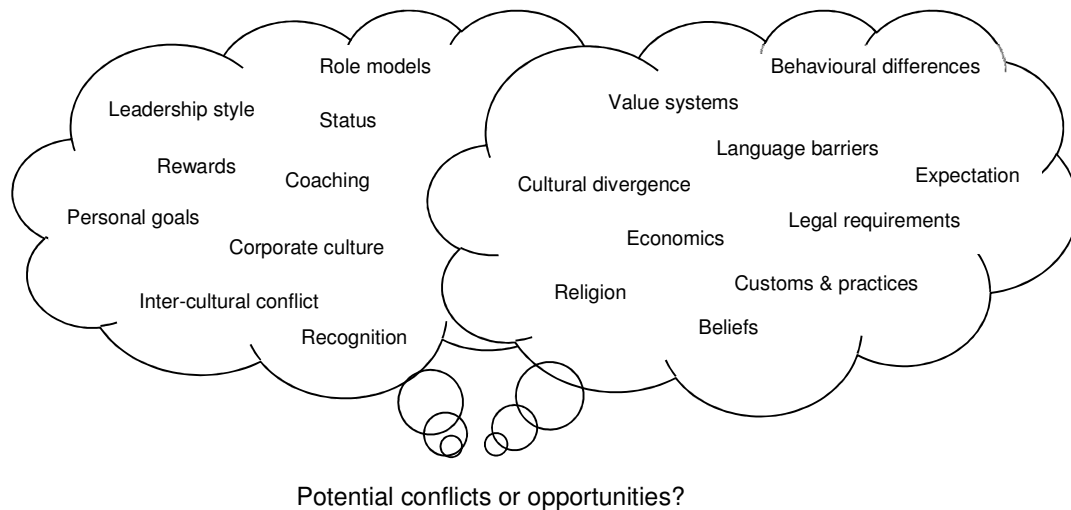


Figure 16 - Complexities of divergent organisational cultures (Author's Own, 2014).

Summary of Culture

Organisational culture can be summarised as a set of values and beliefs that are shared by members of an organisation, influencing how they perceive, think, and act. Cultural differences may be complex within their structure, including behavioural distinctions of the organisation and employees that can be hard to understand and interpret. The lack of understanding in relation to culture can lead to conflict and the methods for dealing with conflict may vary between cultures. The complexities involved with divergent cultures are thus evident suggesting that there are numerous areas requiring consideration if culture is to be understood and leveraged positively.

2.10. CULTURAL MODELS

A review of cultural models provided a wide range of opinion relating to cultural ethnicity and how differing cultures are perceived. Behavioural implications were researched to build up of a picture of the diversity evident in different cultural environments. The standpoints of a number of recognised authors are discussed rather than detailed due to space considerations; complemented by the inclusion of a brief overview of further published authors.

A significant consideration evident from a number of published authors (Morgan, 1986; Willmott, 1993) is the apparent lack of understanding of cultural divergence and the impacts this can cause. This viewed as particularly surprising in relation to the importance placed on cultural differences and the potential impacts on organisations. The diversity associated with cross-cultural organisations is likely to create the potential for more conflict than a mono-cultural one where differing value systems, perspectives and beliefs are brought together within the workplace. Employees as well as managers must be trained in conflict management within this environment if the organisation is to be successful in leveraging diversity.

Cleland (1994) suggests that organisational culture is the environment of beliefs, customs, knowledge, practices, and conventionalised behaviour of a particular social group continuing that every organisation has its distinct character. People make organisations work; and the culture of the organisation ties the people together, giving them meaning and a set of principles and standards to live and work to.

Although there are widely differing definitions of the term '*culture*', individual cultures are repeatedly viewed as consisting of similar, essential characteristics appertaining to each. There is however, a fundamental difference of orientation towards culture within the literature review that can be summed up by the question of whether culture is something an organisation consists of or comprises of what an organisation is (Hofstede, 1991). This may be implicit rather than explicit, and may operate below the level of conscious awareness of the members in a group, causing difficulties with understanding and modifying behavioural patterns.

Geert Hofstede was a senior employee within the International Business Machines (IBM) Corporation, where he conducted most of his cultural based studies. In the second version of *Culture's Consequences* (Hofstede, 2001), he stated that the depth of his survey had covered 72 countries, including over 116,000 survey respondents from within IBM, with additional respondents from outside the IBM environment. The Values Survey Model; a collection of thirty-three questions designed to classify members of national groups into cultural types was used for the survey and four distinct dimensions were identified from the results these being Power Distance Index, Individualism vs. Collectivism, Masculinity vs. Femininity and Uncertainty Avoidance. He identified three levels of mental programming namely individual, universal and collective (depicted in Figure 17).

Power Distance Index (PDI). Hofstede (1994, p. 28) defined Power Distance as: *“the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally”*. In simple terms PDI was designed to represent individuals' attitude towards authority from the bottom up.

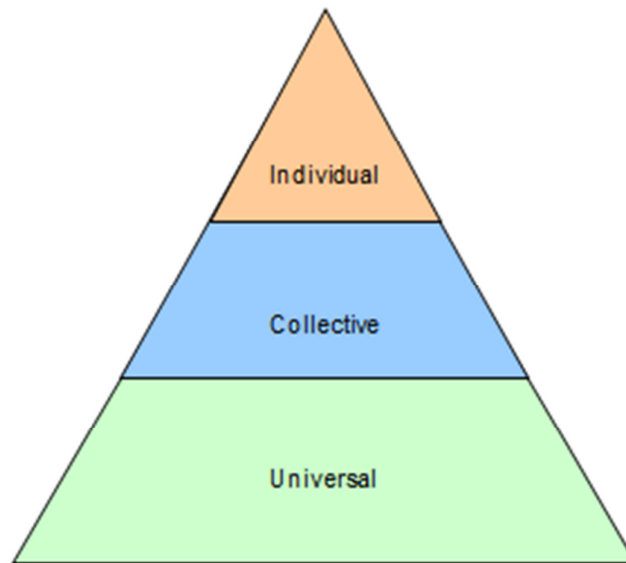


Figure 17 - Hofstede's Culture Triangle (Hofstede, 1994).

Cultures with a high PDI would have a hierarchical system in which subordinates see their superior as more powerful with a paternalistic and autocratic approach. There is considerable dependence of subordinates on their line managers and they either respond to this dependency or reject it entirely. In the case of rejection, the term used to refer to this in psychology is *'counter-dependence'*. Thus high PDI cultures show a pattern of polarisation between dependence and counter dependence. In these cases the emotional distance between subordinates and their line managers is wide and they are unlikely to approach and contradict their respective manager directly.

In a low PDI culture subordinates and superiors consider each other as being equal in terms of who they are and what they do. Hierarchical status is not a valued measure of worth to an organisation and often the implemented hierarchical system is simply an inequality of roles established for convenience. Privileges for superiors are undesirable; furthermore available facilities should be similar in relation to, for example, where personnel park their cars and with welfare amenities being of the same standard for all. Subordinates are more likely to challenge a superior's authority and the more successful leaders utilise a consultative approach to management.

Individualism vs. Collectivism. This describes the relationship between an individual and a team and questions whether they work for the good of the team or personal gain or rewards. Schein (1985) captures aspects of this stating that employees are primarily motivated by economic incentives and will do whatever affords them the greatest economic gain; whereas from the organisations perspective economic gains are under the control of the organisation and the employees are essentially passive agents to be manipulated, motivated and controlled for the organisations gain.

Masculinity vs. Femininity. Masculine values include areas of opportunity for high earnings, recognition and reward for hard work, career progression and other possibilities of advancement; including the sense of accomplishment that comes with success in a challenging task or occupation. Feminine values differ in that areas including good working relationships with line managers, co-operation within teams, job security and a pleasant work and home environment, including a reasonable equilibrium between the two are deemed important.

Uncertainty Avoidance. Uncertainty avoidance relates to individuals' ability to cope with ambiguity in their respective roles and approach to situations. Where the uncertainty avoidance dimension is strong, individuals may perceive unknown, risky situations as potentially threatening and therefore attempt to avoid them at all cost. This type of individual may look for a high comfort level in their respective role, in which they can have vague targets to meet rather than working to specific expectations.

Fons Trompenaars was a student of Hofstede's at the Wharton School of business and his work relating to culture was second only to Hofstede's in overall size. Over a period of fourteen years his study expanded to encompass over thirty thousand participants from more than forty nationalities. His study was different to that of Hofstede's in that he provided data from case study questions which allowed the reader to draw their own conclusions based on the relevance of questions to the participants' cultural backgrounds. This avoided assumptions made by Hofstede's Values Survey Model, however it added to the complexity of the differing cultural aspects.

The primary focus of Trompenaars model (Trompenaars and Hampden-Turner, 1997) (see Figure 18) is that of person-orientated versus task-orientated and hierarchical versus egalitarian. He chose these two dimensions as they cover many of the important differences between corporate cultures.

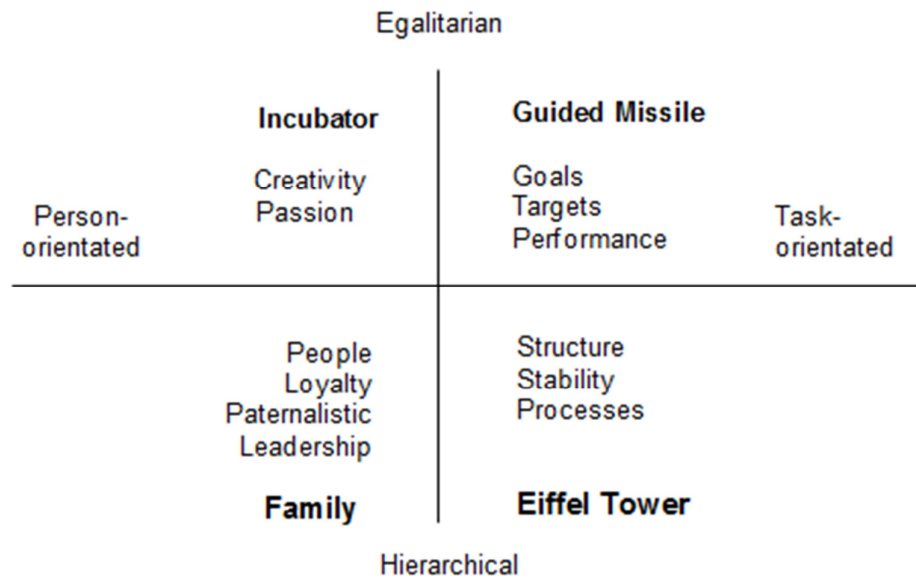


Figure 18 - Trompenaars Corporate Culture Model (Trompenaars and Hampden-Turner, 1997).

The matrix leads to four types of corporate culture being developed namely: the Incubator; the Guided Missile; the Eiffel Tower and the Family

The Incubator signifies cultures associated with person-orientated and egalitarian. This culture profile frees individuals from routine tasks and allows them to be highly creative. Work satisfaction in this type of corporate culture is based upon continuous learning, passion for work itself and the use of innovation leading to new ideas and discoveries.

The Guided Missile is an egalitarian, task-orientated profile devoted to the accomplishment of tasks, goals and targets that are often completed by teams. These are typically multidisciplinary with the individuals chosen because of the skill-set requirement necessary to complete the desired task. Individuals are evaluated against their capacity to contribute to the team goal and their respective performance. Work satisfaction in this type of culture is based on material rewards attached to the respective task undertaken.

The Eiffel Tower culture is highly structured as the name suggests and can be thought of as a large factory processing physical materials. When applied to a large bureaucracy it supports the completion of precise, detailed and routine task without error. The culture is stable, routine and reliable and work satisfaction is based on building competence in a well-defined environment.

The Family culture is based on close face-to-face relations, personal in nature whilst hierarchical in the sense that the gap between managers and employees is very wide. The resulting culture is one where the leaders are regarded as caring parents who know better than their employees; they may be feared or revered. The family culture is personal rather than task-orientated as who you are counts more than what you do. Work satisfaction in this type of culture is based on loyalty and the accumulation of power and status over a period of time (Trompenaars and Hampden-Turner, 1997).

Hall (1976) defined cultures by utilising their attitude towards time, space and context. Monochronic cultures believe that time is a scarce commodity and not to be wasted, depicting time as a finite resource that once consumed cannot be replenished. The most important aspects of communication relating to the Monochronic culture are that it must be quick, direct and executed within time bound slots with work being planned thoroughly. Polychronic cultures believe that time is an infinitely available resource and that life is circular in its make-up, the ability to control time is not evident thus time-scales and time bound planning are viewed as less important.

Space is defined as the boundary around an individual that is considered to be personal space. This space relates to both physical space and objects perceived to be within personal territory. Personal space in the USA is viewed as much larger than that within India for example.

The context dimension looks at communication patterns within a culture. High context cultures, such as Japan are not over concerned with detail and communication can often paint a vague picture of a particular circumstance or contractual obligation. Cultures such as the USA where communication is explicit, including all necessary background information, is classed as a low context culture. The need for clear, concise documentation and legal fine print is evident; all parties in a negotiation or contractual obligation need to understand precise conditions before concluding.

Baron and Walters (1994) produced a model of four underlying components of culture detailing the interactions between them, based on fifteen case studies (see Figure 19). The relationships between model elements are shown as two-way processes indicating that culture is a dynamic force and may influence many areas of an organisation either directly or indirectly. Baron and Walters (1994) indicate that culture can also be driven by organisational processes and procedures hence the circular orientation.

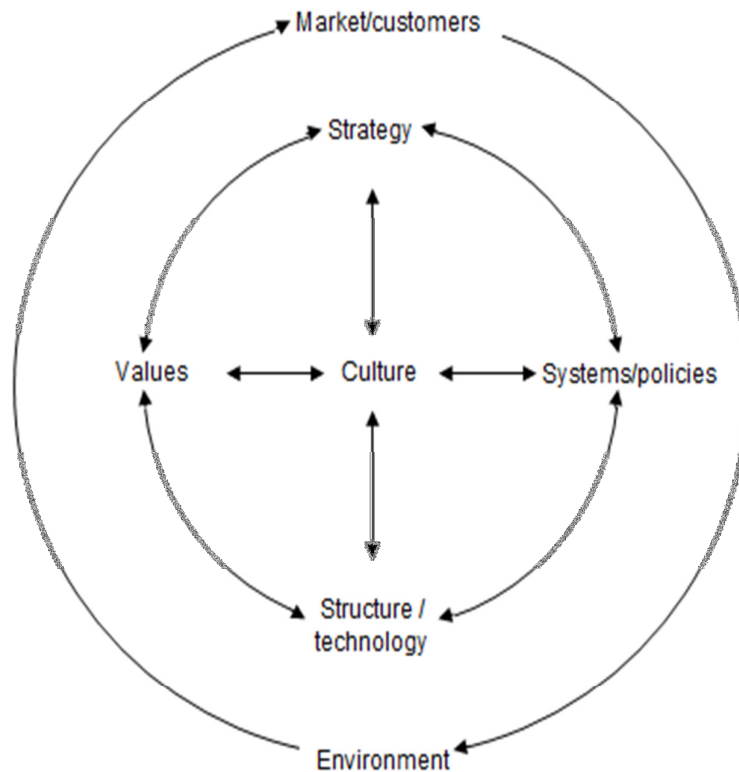


Figure 19 - Components of Culture (Baron and Walters, 1994).

The values component of culture is defined as written statements or shared beliefs of those with seniority and power in an organisation, with the shared beliefs not being formally acknowledged but existing in their own right as a consequence of the culture. Dominant values will, by their very nature, shape and determine the organisational objectives creating a situation where there is a mutually reinforcing cycle.

Structure and technology facilitate the development of a particular culture through their use as tools. They can either reinforce the aspects of a culture or conversely inhibit changes within a culture depending on how they are applied. In themselves they do not drive culture change, they enable it to change (Baron and Walters, 1994). The systems and policies chosen by an organisation will be influenced by the culture the organisation is driven by if they are to be embraced. Shared beliefs on how to manage areas of an organisation successfully, complete projects on time or develop teams being typical examples. If an organisation is run in such a manner as to perpetuate a specific cultural approach that is widely accepted then the chance of success is likely to increase. Alternatively, if an organisation applies systems and practises that lead to cultural conflicts and difficulties then they may be deemed counterproductive and not be implemented as desired by the organisation.

Strategy is an important area in the shaping of a corporate culture. Organisational objectives are significant drivers in the culture change requirements of a business and their influence is not to be underestimated. Employees may become confused in relation to their goals if publicised policies are not carried out in practise by their organisation. Conflict can be caused, for example, when profit is put before ethics such as fairness.

Handy (1985) argues that the larger an organisation is the more routine its environment is likely to be. Furthermore he comments that the more interdependent and expensive its technology is will impact on whether or not it will adopt a role culture. Where technology and environments change rapidly then a more task-orientated culture will be evident. The result is that differing cultures call for differing approaches and certain types of people will be happy and successful in one culture, but not in another.

Culture develops through social learning mechanisms whereby actions and behaviours associated with favourable outcomes tend to be repeated and developed, leading to the point where they become behavioural norms (Baron and Walters 1994). Garrison and Rees (1994) concluded that it is necessary to have awareness of a specific cultures economics, economic ideology, government and religious persuasions in order to address the issues that cultures can manifest. Their study interrogated how these differences have come to be and utilised an analytical tool to describe the foundation of an organisational culture that is made up of the following elements:

- Economics, the measure identified is that of whether or not an individual feels wealthier or is becoming wealthier with the passing of time.
- Economic Ideology refers to the underlying assumptions and theories underpinning the economic structure of a country.
- The government of a particular country play a significant role in the shaping of its national culture. This can be determined from understanding the depth of government involvement in regulating the respective country's economy along the line between a capitalist and communist structure.

Garrison and Rees (1994) support the view that the primary religion of a culture contributes significantly to the implicit assumptions that make up a culture. The belief in the ability to control his / her own destiny; which is the hierarchical vs. democratic viewpoint, is evident in forming a view as to the value individuals place on human life and acceptance of circumstances placed upon them.

Garrison's Triangle Model of Culture (1994), is used to model their perspective on cultures and utilises specific axes namely: '*Work Systems*', '*Behaviour Pattern*' and '*Bedrock*'. The participants in Garrison's study were asked questions to place themselves along each of the three axes dependant on their responses. In the example shown (see Figure 20) two cultures represented by the smaller and larger triangles within the circle, are compared against the three axes identified. The model provides a quick, simple overview of any potential areas for conflict between the cultures and is a useful tool for analysing, for example, the potential success of bringing two or more differing cultural groups together based on their value systems.

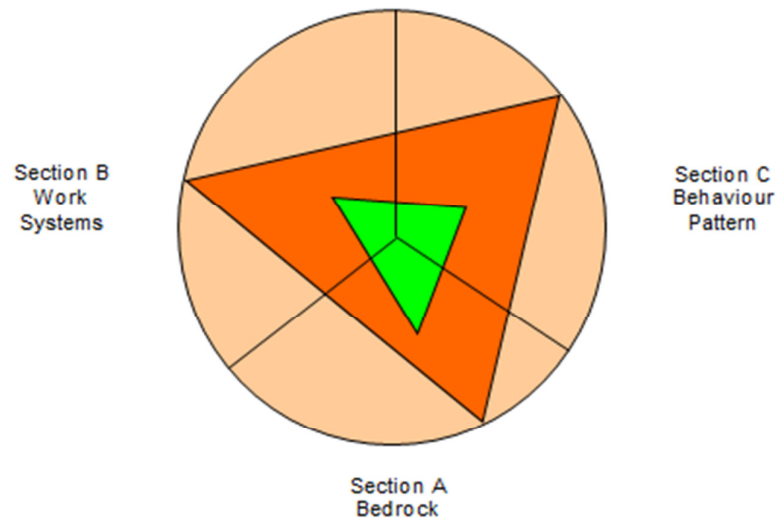


Figure 20 - Garrisons Triangle Model of Culture (Garrison and Rees, 1994).

The work systems axis is utilised to analyse whether or not a culture is a materialistic or communitarian dimension. The materialistic culture supports the theory that most businesses revolve around wealth in contrast to communitarian where job satisfaction and security are primary concerns and financial aspects are likely to be less important.

The Behaviours Axis defines the culture of a country as either open or closed. In a typical open culture it is regarded as relatively easy for non-nationals to enter and feel comfortable within their surroundings. This differs in a closed culture where the individual may well feel uncomfortable and struggle to understand the peculiarities of the culture in which they reside in. This is similar to Hall's (1976) context dimension. The Bedrock Axis describes how individualistic or corporatist the culture of a given country is. The individualist culture is categorised as one with industry, trade unions organisations and financial areas operating remotely from each other with the

respective government providing a background framework to work within. The corporatist cultural approach differs in that industry, trade unions, financial institutions and the government work together for the good of the country as a whole.

Abraham H. Maslow was arguably one of the most important psychologists of modern times. Norwood (2002) comments that no study relating to the values of individuals and groups would be complete without taking into account Maslow's work. Maslow was the fourteenth most frequently cited psychologist in introductory psychology textbooks; on the basis of various indicators, a number of researchers proclaimed Maslow as the tenth most eminent psychologist of the twentieth century (Haggbloom et al., 2002).

Maslow's work looks at the basic biological needs of the body required to survive, which are water, food, breathable air and a temperature spectrum supporting life. It follows that the body requires these basic needs to be met before aspiring to greater values further up the value triangle (Norwood, 2002). Security needs refers to the personal safety of an individual and includes shelter and adequate supplies to be available to fulfil this need. Social needs is defined as the importance placed on being part of a group or team whilst recognising the importance of meaningful relationships. The term Ego needs relates to the feelings of self-worth, including the sense of empowerment and pride in achievement one can feel through recognition (Maslow, 1943). Self-Actualisation is defined as being involved in a cause outside one's own persona, this could be in the form of a vocation or priestly calling (Norwood, 2002).

Maslow was not known for specific studies relating to cultural differences, however similarity between Hofstede's Universal Values and Maslow's Values Pyramid can be drawn (see Figure 21). In addition, individuals are motivated by the desire to achieve or maintain the various conditions upon which these basic satisfactions are met and by certain more intellectual desires. Maslow (1943, p. 375) comments that:

"It is quite true that man lives by bread alone when there is no bread. But what happens to man's desires when there is plenty of bread and when his belly is chronically filled? At once other (and 'higher') needs emerge and these, rather than physiological hungers, dominate the organism. And when these in turn are satisfied, again new (and still 'higher') needs emerge and so on. This is what we mean by saying that the basic human needs are organised into a hierarchy of relative prepotency".

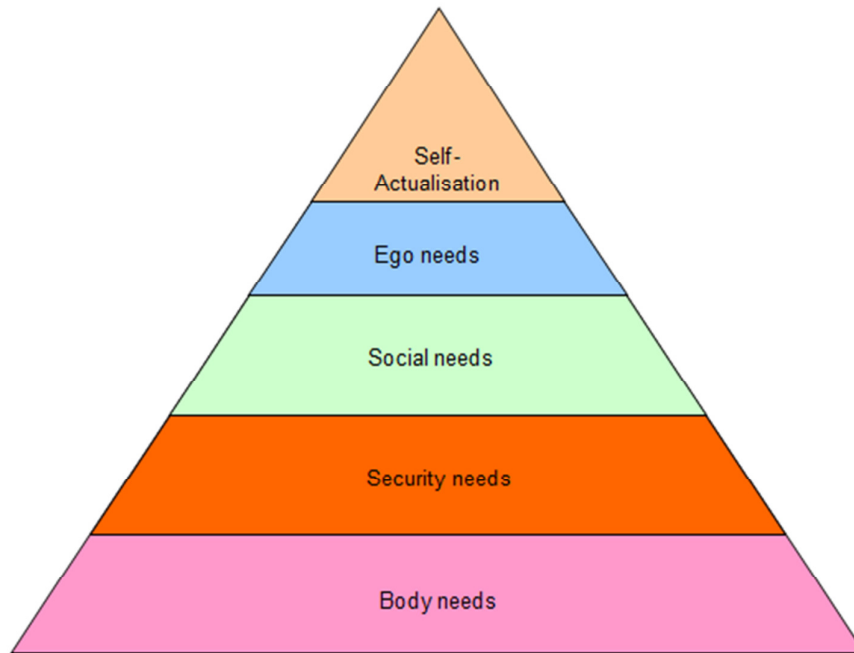


Figure 21 - Maslow's Values Pyramid (Norwood, 2002).

Maslow (1943) offered simple examples for assistance in understanding Self-Actualisation. He described it as a tendency to become more and more what one is, to become everything that one is capable of becoming. It would vary from person to person; in one individual it may take the form of the desire to be an ideal mother, for another it may be expressed athletically whilst in another it may be expressed through painting pictures or developing inventions (Maslow, 1943, pp. 382-383). A key inference of Maslow's phrasing is that gratification and deprivation become equally important concepts within motivation theory. An example used to illustrate this point is that an individual who is starving to death will not be interested to any degree in their respective position within a team.

Koltko-Rivera (2006) discusses the view that Maslow (1969a) amended his '*hierarchy of needs*' model to incorporate self-transcendence as a motivational step beyond self-actualisation. In '*Toward a Humanistic Biology*', Maslow (1969b) introduces this stating that he is behaviouristic, humanistic, and developing what might be called a fourth psychology of transcendence. Koltko-Rivera (2006) summarise research by Smith and Schwartz (1997) performed in the field of motivational self-transcendence; providing evidence that there is a high degree of similarity between Smith and Schwarz and Maslow's notions, whilst appreciating the two are not identical.

Incorporating self-transcendence into Maslow's hierarchy of needs provides a theoretical tool with which to pursue a more comprehensive and accurate understanding of human personality and behavior (Koltko-Rivera, 2006). This particular topic is not researched any further due to the divergence from the main thesis theme; however it is noted for the reader who wishes to interrogate the development of Maslow's theory to a greater degree.

An understanding of these universal values is particularly important when dealing with different cultural value streams. The diversity between cultures such as the highly individualist culture of the USA and a collectivist culture such as Japan vary widely in how their respective value needs are met. An individual within the USA is likely to feel part of the organisation by simple means such as publishing a team organisation chart to which the individual belongs. In contrast to this, the Japanese culture is not as responsive to such simple means of creating belonging and individuals' will take time to grow their sense of belonging in a much more gradual manner (Trompenaars and Prud'homme, 2004).

The study of culture has led to various theories relating to management of differing cultures. Thomas and Ely (1996) summarise work that is performed in organisations today and define three main concepts for managing the diversity found within organisations:

Discrimination and Fairness concept. This approach relates to the level of fairness and equality of all. In relation to the working environment the specific areas identified are those of equal opportunity recruitment and fair methods of career advancement.

Access and Legitimacy concept. As noted above the diversity of a workforce and hence the respective organisation may be advantageous if utilised effectively. This concept postulates that the main advantage of a diverse organisation is the possibilities of reaching wide-ranging, untapped markets can be increased purely by being diverse.

Learning and Effectiveness concept. This concept focuses on the value of including individuals' perspectives into the main work streams of an organisation. This is enabled by rethinking how primary tasks are completed, together with understanding and potentially redefining business markets including product portfolios. Thomas and Ely (1996) suggest that this is the most effective way of leveraging gains through having a diverse approach.

Miller and Katz (2002) develop this by identifying the key competencies that managers need within their skill-set if they are to be successful in leveraging diversity in an organisation. Strong communication skills are essential, as is the ability to listen and empathise with differing viewpoints and positions relating to specific issues and circumstances.

The cultural models represented within this review are not the sum total of studies and dimensions identified within the literature review undertaken. The brief summary of additional published work below is presented in order to convey the observation that there are many differing approaches to the study of culture and its many facets. A number of the differences reviewed within the literature were subtle with strong similarities between authors, whilst others had conflicting opinions.

Carper (1998) identifies ten variables of culture those being; time, environment, communications, space, power, thinking, structure, competitiveness, individualism and action. Within his studies these areas are divided into sets of values in order to ascertain cultural patterns. Gesteland (1999) describes patterns of cross-cultural behaviour as relationship vs. deal-focused, hierarchical vs. egalitarian, polychronic vs. monochronic and reserved vs. expressive. Deal and Kennedy (1982) took a different approach in that they looked at differing business environments rather than cultural differences. They distinguished between businesses that had fast paced vs. slow paced feedback scenarios and high risk vs. low risk taking environments.

Summary of Cultural Models

The review of cultural models provided a wide range of opinion relating to cultural ethnicity and how differing cultures are perceived. The ability of organisations and individuals to understand these differences through identifying culturally driven behavioural distinctions and how to manage them effectively remains a pertinent question. This can cause confusion in those expected to manage culturally diverse teams, identifying the need to equip managers and employees with the skills to manage potential conflict and cultural differences effectively. Understanding behavioural norms, evidenced where favourable outputs are seen can support the development of cultural understanding, however it is necessary to have awareness of a specific cultures economics, economic ideology, government and religious persuasions in order to address the issues that can manifest.

2.11. EMOTIONAL INTELLIGENCE

Current interest in Emotional Intelligence (EI) has resulted in a growing number of texts and papers on the subject and some reconsideration regarding the scope, dimensions and clusters that comprise the EI framework. The American psychologist Daniel Goleman has been a key figure in raising the profile of EI and he has been particularly influential in developments across Europe and North America. Many organisations and theorists concerned with EI and the related concept of Emotional Competence (EC) acknowledge his contribution to their own models and frameworks (Wakeman, 2009).

Daniel Goleman was commonly mistaken for having invented the concept of EI, however he built on the work of earlier pioneers (Olive, 1998). The term EI has been traced back to a doctoral thesis that was written in 1985 by Wayne Leon Payne a student at an alternative liberal arts college in the USA (Wakeman, 2009) with the history behind EI theory dating back to the work done by Harvard psychologist Howard Gardner (1983).

These theories were further developed by the research efforts of Mayer and Salovey in the early 1990's, however EI did not become mainstream until Goleman published his work in the late 1990's (Chrusciel, 2006). Goleman has been recognised for his ability to turn EI into a collection of business friendly axioms for individual and organisational improvement expressed in the authoritative language of the clinical psychologist (Olive, 1998).

Researchers have not arrived at a consensus regarding the definition of EI (Mayer et al., 2008) and questions they framed include; is it aptitude or a set of social skills? Whilst there are varying definitions of EI, there is agreement in the literature that EI includes an individual having an awareness of and an ability to regulate their emotions (Koman and Wolff, 2008) and the importance of EI for management success has been formally established (Turner and Lloyd-Walker, 2008).

Mayer et al. (2008) provided a working description of EI in that it concerns the ability to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought. Salovey and Mayer (1990) describe EI, also referred to in published texts as Emotional Competence (EC), as terms used by theorists interested in the adaptive significance of emotion. They suggest that there is a correlation between EI and the quality of peer relationships of individuals and groups by defining EI individuals as:

“Aware of their feelings and those of others. They are open to positive and negative aspects of internal experience, and are able to label them, and when appropriate, communicate with them. Such awareness will often lead to the effective regulation of affect within themselves and others, and so contribute to wellbeing. Thus, the emotionally intelligent person is often a pleasure to be around and leaves others feeling better” (Salovey and Mayer, 1990, p. 186).

This is developed by categorising EI as a set of skills hypothesised to contribute to the accurate appraisal of emotion in self and others. The component skills of this are identified as appraising, expressing emotion and regulating emotions in oneself and in others. The adaptive use of emotions; with creative thinking and motivation being derived from persistence, are explored to understand their potential to affect individuals and groups behavioural patterns through EI management. The emphasis in Salovey and Mayer’s (1990) theoretical approach is on individual adaptation and mental health; including the development of credible communication skills supporting EI.

Goleman (1996) referred to EI as the ability to regulate one’s own emotions and behaviour and to effectively use emotions to motivate, plan and achieve goals to be successful. Goleman (2004) described EI as the capacity for recognising our own feelings and those of others, for motivating ourselves, and for managing emotions in our relationships with others and inwardly towards ourselves. It is the ability to read, interpret, and respond appropriately to the moods, needs and behaviours of others. Within EI literature there is considerable debate regarding what constitutes the domain of EI and the terminology used to describe the construct and methods used to measure it (Dulewicz and Higgs, 2003).

Despite the crucial role that EI could play in improving individuals' performance and career prospects in organisations; employees, executives and career professionals across the world remain in search of practical frameworks for understanding the concept (Kunnanatt, 2008). This is somewhat disturbing as this runs alongside a strongly emerging view from varying work streams, that EI is a critical factor in the effective leadership of twenty-first century organisations. It plays a significant role in managers' performance, especially where delegation of work and power are concerned (Dulewicz and Higgs, 2003; Bahdor et al., 2011).

The literature supports EI as a key element on which human resource professionals and organisations must focus, with research indicating a correlation between EI and top performers and general performance climates in the workplace (Morehouse, 2007). Studies looking at career performance of executives reveal that managers who are self-aware and have true understanding of their own and other’s emotions; and are

able to use that understanding to effectively motivate, inspire and connect with others are far more effective than traditional managers who actively separate emotion from the workplace. This traditional management approach promotes methodical, detached and micro-managing styles of supervision (Goleman et al., 2002).

EI is gaining validity within performance and career development circles, as executives with EI are increasingly being shortlisted for faster career advancements in organisations (Dulewicz and Higgs, 2003). Understanding that EI is tied to successful leadership; it follows that skills of emotionally intelligent people, including flexibility, conflict management, persuasion and social reasoning become increasingly important with advancing levels in leadership hierarchy (Mandell and Pherwani, 2003).

Based on evidences from 121 companies around the world Goleman (1998) argued that EI abilities for performance excellence have twice the impact of technical and cognitive abilities. A comparison between senior managers and middle managers targeted for promotion resulted in significantly higher scores among senior managers in EI and the competency areas of innovation, commitment, political awareness, leadership, change catalyst, and team capabilities, strongly supporting EI as a measurement tool for promotion readiness (Langley, 2000).

Additionally, a seven-year longitudinal study (Dulewicz and Higgs, 2003) revealed EI as more important than intellect and other management competencies in the advancement of managers, with recent research evidence suggesting EI as a vital element in excellent job performance profiles of organisations (Morehouse, 2007).

Richard Boyatzis (1982) completed a study of over two thousand supervisors, middle managers and executives at twelve different organisations and found that of the sixteen abilities that distinguished star performers from those classed as average, all but two were emotional competencies. This suggests that further understanding of EI and its attributes are key to improving managerial effectiveness.

Barling et al. (2000) completed a study examining leadership and EI concluding that EI is positively related to three components of transformational leadership; idealised influence, inspirational motivation and individualised consideration. The highest correlation was between EI and inspirational motivation indicating that the EI dimension of understanding emotions is particularly important in leadership effectiveness.

Transformational leaders bring about their goals by enticing their followers with visionary goals. They challenge the status quo and are genuinely concerned with individual needs and the importance of giving feedback. Their respective skill-sets overlap with EI including storytelling, comprehensive language skills and a positive attitude to life (Strongman, 2003).

With regards to transformational leadership Ashforth and Humphrey (1995) suggest this it is dependent upon the evocation, framing and mobilisation of emotions. Transformational leaders create positive outcomes through careful management of impressions and generate high emotional commitment to those around them. In contrast, transactional leadership approach appears to be more dependent upon subordinates' cognitions; tending to follow a rational model of motivation, for example through payment and security (Strongman, 2003).

Sparrow (2002) completed his own studies in the area of EI and his definitions of the competencies required for effective leadership were as follows:

- Other awareness, to be able to identify the type of leadership required.
- Flexibility, an aspect of self-management in order to provide the style of leadership style required.
- Accurate self-assessment, to be able to decide whether an individual can provide the required style of leadership.

Gardner (1983) was not the first person to suggest that there are separate and distinct human capacities for different types of intellect, however his arguments were certainly the most powerful to be published at the time and as a consequence many theorists consider Gardner to be the key figure in bringing about the change of emphasis from traditional views of Intelligence Quotient (IQ) to the current and much broader perspective of what constitutes intelligence, including EI.

Emotional Quotient (EQ), introduced by psychologist Reuven Bar-On (1985), is the unit of measurement for EI (Barbuto and Burbach, 2006; Harms and Credé, 2010). EQ is an individual's ability to perceive and assess the emotional state of oneself, others, and the group while interacting in a team environment (Wu, 2011). EQ includes the ability to combine and harness emotions, and regulate one's emotion, including deferring instant gratification to improve outcomes and personal growth (Bar-On, 2006).

Goleman (2004) considers that EI is distinct from, but complementary to academic intelligence which is measured in terms of the individual's IQ. The reference here is that there are two distinct yet connected types of intelligence namely intellectual and emotional. Research efforts are attempting to distinguish EI from the cognitive reasoning known as general intelligence as measured by IQ (Chrusciel, 2006).

Pellitteri (2002) suggests that to have recognition in being able to use one's EI a level of IQ is required. His research supports the view that there is a moderate correlation between IQ and EI / EQ satisfying the viewpoint that a level of intelligence is implied, whether it is emotional or general. The emotional knowledge component should therefore be more closely correlated with general intelligence IQ than other components of EI (Chrusciel, 2006).

As the workplace becomes more flattened hierarchically, there is a growing expectation on the individual contributing creatively to their respective organisation. The emphasis on an individual's capacity to influence organisational change has become the topic of detailed study (Mayer et al., 2008, p. 508) pointing out that EI offers a consideration: *"that people can reason about emotions and use emotions to assist reasoning"*. Mayer et al. (2008) also refer to studies in which emotion can ripple through groups and society and this rippling of emotion may potentially affect change in a team or group.

For a considerable time, emotion was an underprivileged area in psychology studies (Frijda, 1988). It was not regarded as a major area of scientific psychological research however from early theories; including Plato and Aristotle, the subject domain has grown in significance. In his book, *'The Psychology of Emotion: From everyday Life to Theory'* Strongman (2003) discusses that there are many theories of emotion and he covers over 150 categorised into phenomenological, behavioural, physiological, cognitive, developmental, social and clinical. Frijda (1988) supports Strongman's view suggesting that emotion has become an important domain with a coherent body of theory and data.

Emotion has increasingly been acknowledged as important in explaining variation in key cognitive and social processes, influencing how events are interpreted. Social psychologists often include emotion under the generic term *'affect'*, however all emotions are affective, but not all affective things are emotions. Emotions arise in response to on-going, implicit appraisals of situations with respect to positive or negative implications for one's goals and concerns (Schwarz and Clore, 2007).

Emotions are governed by laws and emerge and manifest themselves the way they do because lawfully operating mechanisms dictate responses. We are all subjected to these mechanisms within organisations and are expected to obey the rules therein. Individuals are not indiscriminately subjected to such mechanisms and not all human emotions are dictated by emotional laws. It is possible therefore to exert voluntary emotion control and substitute deliberate action for impulsive emotional responses determined by prevailing circumstances (Frijda, 1988).

Frijda (1988, p. 349) described the laws of emotion as illustrated by: "*The constitution of emotion, the law of situational meaning: Emotions arise in response to the meaning structures of given situations; different emotions arise in response to different meaning structures*". Emotions are dictated by the meaning of events in a precisely determined fashion. Maitlis et al. (2013, p. 223) defined emotion as a: "*transient feeling state with an identified cause or target that can be expressed verbally or nonverbally*", important to the process of sense-making. It is the process through which organisations undergo to explain novel and unknown events (Grandey, 2008; Russell and Barrett, 1999).

From 1994 to 2009, over two-thirds of information technology projects failed to meet the three constraints of schedule, budget, and scope due to lack of project managers' soft skills (Sahar-Khiz, 2011). Although the importance of EI in management is well documented, a gap exists in exploring soft skills among project managers. Additional findings to the work completed by Sahar-Khiz (2011) revealed strong relationships between workplace EI levels and personality styles. The study supported a way of recognising EI competencies that best fit with project managers' personality styles for developing effective soft skills contributing to project failure rate reduction. In globally diverse teams, psychological factors such as emotional and cultural intelligence are related to the quality of team collaboration and success (Shachaf, 2008).

There are two levels of role based competence identified by Goleman (2004) these being threshold and distinguishing respectively. Threshold competencies are those that individuals need in order to get the job done; these are the minimal requirements needed to carry out tasks relating to a specific position. In contrast distinguishing competencies are those that individuals presently working within in a role must achieve if they are to perform at consistently outstanding levels. It is important to note that Goleman acknowledges that threshold and distinguishing competencies will have relative weights when applied to a particular positions needs.

He continues by developing the view that EI is twice as important in the overall contribution to excellence as pure intellect and expertise are (Goleman, 1998, p. 31). Goleman (1998) separates EI into three areas as defined below:

- Knowing what you are feeling and being able to handle those feelings without having them swamp you.
- Being able to motivate yourself to get jobs done, being creative and performing at your peak.
- Sensing what others are feeling and handling relationships effectively.

Goleman (2004) was responsible for creating a framework relating to EI, which consists of five dimensions (see Table 10).

PERSONAL COMPETENCE	SOCIAL COMPETENCE
Self-awareness	Empathy
Self-regulation	Social skills
Motivation	

Table 10 - Dimensions of Emotional Intelligence (Goleman, 1998).

Self-awareness, as defined by Goleman (2004), is knowing what we are feeling in the moment; and using those preferences to guide our decision making, including having a level of self-confidence whilst recognising our limitations. Self-regulation relates to handling our emotions so they facilitate rather than interfere with tasks. This includes being conscientious whilst delaying gratification to pursue goals incorporating the ability to recover strongly from emotional distress. Motivation includes the use of our deepest preferences to move and guide us towards our goals, to help us take the initiative and strive to improve. This competence also being identified as having the strength to persevere against setbacks, blockers to success and frustrations.

Empathy is having the consciousness to sense what people are feeling, being able to understand and relate to their perspective and the skills to cultivate a level of rapport with a broad diversity of people. Social skills consist of a wide range of skills including the ability to handle the emotional aspects in relationships and understand social situations. Leadership qualities such as the ability to persuade, negotiate and settle disputes and promote co-operation and teamwork are identified within this trait.

Higgs and Dulewicz (2002) model for EI includes managerial and intellectual competencies with an emphasis placed on interpersonal competencies, interpersonal sensitivity and the ability to influence (depicted in Figure 22). Each element in the model is related to EI competence requirements. The driver is motivation whilst constrainer is conscientiousness. Intrapersonal Enablers are defined as self-awareness, emotional resilience and intuitiveness, whilst Interpersonal Enablers are interpersonal sensitivity and influence levels.

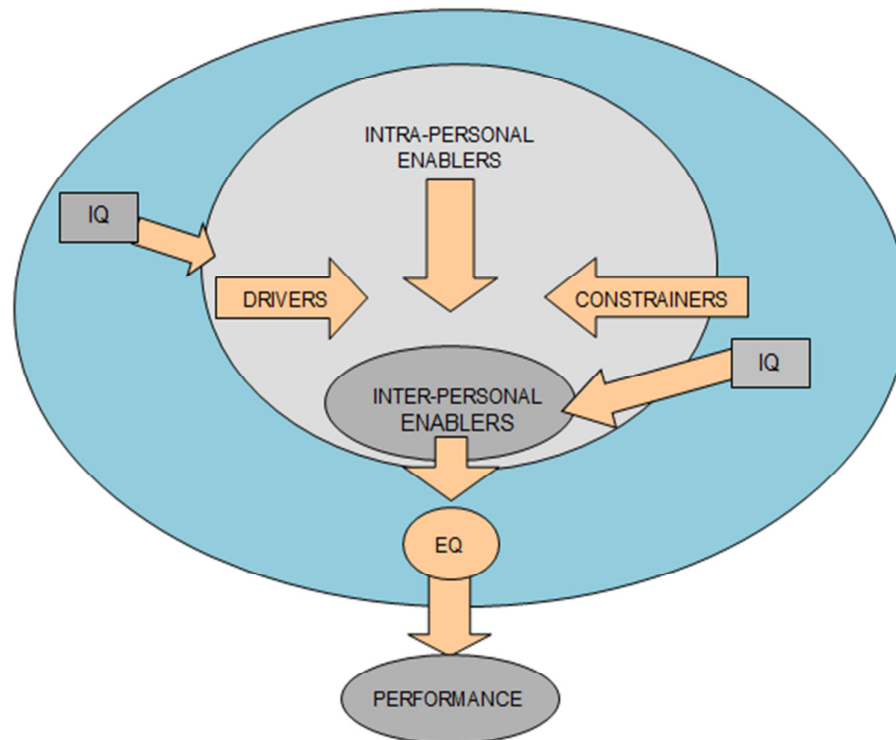


Figure 22 - Model of Emotional Intelligence (Higgs and Dulewicz, 2002).

The studies performed by Higgs and Dulewicz (2002) suggest that enablers are more comfortable with development than drivers and constrainers, although they support the viewpoint that accuracy is doubtful when measuring the competencies due to the difficulty of measuring said competencies accurately.

Strongman (2003) considers the emotional climate and thus the potential to affect EI may differ from culture to culture depending on underlying social, economic and political circumstances. He goes on to cite many causes of differing emotional climates which include fear, security, motivation, instability, confidence, satisfaction and conversely dissatisfaction. The overview gained from Strongman is that as with previously discussed behavioural patterns the emotional state of individuals, groups

and indeed nations, can be affected by many differing conditions which may be identifiable or subtly hidden within the culture, varying in line with the value systems of respective cultures.

EI can be developed by attending specific training programs (Cooper and Sawaf, 1998). Goleman supports this view suggesting that EI can be learned. Individually we can add the necessary skills to our tool kit, which supports the view that emotional competencies can be assessed and therefore improved leading to performance enhancement, both for individuals and organisations collectively.

Summary of EI

EI is identified as a key component of the skill set for CI practitioners involved with CI implementation programs and First Line Manager (FLM'S) alike. A lack of EI is likely to have a negative impact on employee / manager relationships. Managers who display EI in their approach to colleague interactions tend to have stronger relationships and others believe in their ability to deliver, this may be a colleague relationship to their FLM or a large-scale project they may be running with numerous stakeholders. The literature review supported EI as a differentiator between lower and middle level managers to leaders of organisations and many published works place EI on par or above Intellectual Quotient (IQ) in relevance to a managers' skill-set.

2.12. APPRECIATIVE INQUIRY

Appreciative Inquiry (AI) was initially developed by David Cooperrider and his colleagues in the 1980's. AI seeks to effect change / transformations by focusing on organisations members' positive experiences (Cooperrider and Srivastava, 1987; Bushe and Kassam, 2005; Siegel, 2008). AI is a form of action research designed to help organisations create new, generative images intended to transfer thinking to a more positive and generative consciousness in order to achieve transformational change (Marshak and Grant, 2008). The intent of AI is to engage all stakeholder groups in inquiry into the positive potential for cultural and systemic change (Siegel, 2008).

Diana Whitney, Cooperrider's collaborator for a number of the first AI projects in the 1990's had a major impact on the evolution of the practice of AI. The most authoritative sources on AI practice are identified as Cooperrider, Whitney and Stavros (2008); Ludema et al. (2003); Whitney and Trosten-Bloom (2003), in (Bushe, 2011).

AI advocates collective inquiry into the best of what there is, facilitating a drive to what could be. This is followed by collective agreement of a future state that is positively compelling and therefore does not require the use of incentives, coercion or persuasion for planned change to occur (Bushe, 2013). AI is not a methodology or theory; it is an approach to strategic change / transformation and sustainable growth for organisations.

Pink (2009) proposes that organisations adopt a revised approach to motivation of colleagues based upon Self-Determination Theory (SDT). This theory proposes that we have an instinctive desire to be autonomous, self-determined and connected to one another and when this positivity is liberated greater achievements can be made leading to richer lives and improved performance.

The link to AI is evident here and organisations should focus on these expectations when managing colleagues to support our innate need to direct our own lives [autonomy], learn new skills and create new things [mastery] and to do better by ourselves and our world [purpose]. The goal of finding meaningful, enjoyable work for our colleagues in a warehouse environment is a challenging one and motivating them through job content is therefore a significant hurdle. Money can pre-occupy colleagues and the solution can be to pay them at a rate that takes money away as the primary focus of coming to work. If they are not thinking about money they are likely to be thinking about the job (Pink, 2009). Once this paradigm shift is realised three factors lead to better performance and personal satisfaction; autonomy, mastery and purpose.

In summarising AI, Cooperrider and Whitney (2001) see it as the cooperative search for the best in people, their organisations, and the world around them. It involves systematic discovery of what gives a system '*life*' when it is most effective and capable in economic, ecological, and human terms. AI involves the art and practice of asking questions that strengthen a system's capacity to heighten positive potential. It mobilises inquiry through crafting an '*unconditional positive question*' often involving hundreds or sometimes thousands of people.

Watkins and Mohr (2001) suggest that AI contrasts with traditional organisational development practices which they claim are based on a modernist, objectivist and scientific orientation. They assert that AI is based on social constructionist premises where reality is at least partially, if not completely, a result of one's own mind-set. The power of socially constructed mind-sets is reflected in the supporters of AI who discuss the impact of '*deficit-focused thinking*' alleged to be part of traditional action research versus the '*positive-focused thinking*' that forms the core of AI.

Gergen et al. (2004) explored the transformative capacity of dialogue in organisations. Dialogue can create space for new meanings and generate shifts in attitude and behaviour among large or small groups of organisational members. This creates conditions conducive to effecting significant and beneficial organisational change. In one example of AI leading to success, Gergen and his colleagues suggest that new organisational development practices depend on the ability to shape dialogue among participants. This is done by carefully choosing the topic to focus on and the questions to be asked (Bushe and Kassam, 2005). The idea is to ensure that the dialogue focuses on positive processes or practices of the respective organisation encouraging participants to recount stories that personify and endorse positive features.

Barrett and Cooperrider's (1990) study of the '*Medic Inn*' case demonstrates the value of such an approach. The hotel's staff were given the task of transforming the '*Medic Inn*' from a one star facility to a four star facility. The hotel facilities had been upgraded to meet four star standards; however the service culture at the hotel did not change. To address the poor service culture AI was introduced which involved taking the entire staff to another four star hotel. The staff at the second hotel recounted stories and experiences relating to what were the moments that led to them being fulfilled in their jobs. Following this, staff at the '*Medic Inn*' interviewed each other looking for similarly defining and positive events. These were then used to generate an action plan, including a list of aspirations for the hotel's future state and within four years the hotel had achieved a four star rating from Michelin for its service quality.

Siegler (2008) suggests that there may be a link between AI approaches to change in an organisation with the EI of the employees therein. Thus the opportunity may exist for developing individuals through AI and EI synergies; specifically exploring the aspects of EI that focus on reflection, understanding and analysis of self and others.

When implementing change strategies, the expectation is for group members to change in support of the organisational goals. As an organisation changes, understanding how individuals also change at a personal level is fundamental if they are to mutually succeed. AI is a change process that is intended to transform organisations in positive, generative ways. Individual AI and EI processes provide a focus as to what effect change processes may have on an individual (Siegler, 2008).

The Appreciative Inquiry Model. The theory's central management insight is that teams, organisations and society evolve in whatever direction we collectively, passionately and persistently ask questions about (Bushe, 2013). AI is a response to the significance of problem-solving in managerial work and the classical action research approach to organisational inquiry and change. Cooperrider (2012) emphasises the limitations of problem solving for expanding human horizons and possibilities, pointing out that the most powerful force for change is a new idea. He argues that we need forms of inquiry and change that are generative: they help us discover what could be, rather than try to fix what is.

For the first fifteen years after the publication of his seminal 1987 paper on AI, Cooperrider resisted calls to write a book on how to 'do' AI as he wanted interested parties to focus on the principles of the model and encouraged a widespread innovative approach. The four principles (Cooperrider and Srivastva, 1987) laid down for AI were that action research should begin with appreciation, should be applicable, be provocative and collaborative. The basic process of AI is to begin with a grounded observation of the '*best of what is*', then through vision and logic collaboratively articulate '*what might be*', ensuring the consent of those in the system to '*what should be*' and collectively experimenting with '*what can be*'. As a result, many ways of undertaking AI have been developed and it is inaccurate to say there is any singularly accepted method.

The AI model is based on the assumptions that organisations are a socially constructed phenomena, which have no tangible reality. The limitations of organising are limited only by the human imagination and the agreements people foster with each other. It seeks to create processes of inquiry that will result in better, more effective, genial, and vital social systems. It assumes this requires widespread engagement by those who will ultimately implement agreed changes. Bushe (2007, p. 30) suggests: "*When successful, AI generates spontaneous, unsupervised, individual, group and organisational action toward a better future*".

Cooperrider and Whitney (2001) published a set of five AI principles that are widely cited and applied today. They were in response to concerns about the place of problems and problem solving in organisational change efforts relating to AI.

The **Constructionist Principle** proposes that what we believe to be true determines what we do, with thought and action emerging out of relationships. Through the language and discourse of day to day interactions, people co-construct the

organisations they inhabit. AI's purpose is to engage as many members of the system as possible in the inquiry and focus on articulating desirable collective futures stimulating new ideas, stories and images that generate new possibilities for action (Cooperrider and Whitney, 2001).

The **Principle of Simultaneity** proposes that as we inquire into human systems we change them and the seeds of change; the things people think and talk about, what they discover and learn, are implicit in the very first questions asked (Cooperrider and Whitney, 2001). Questions are never neutral, they are fateful, and social systems move in the direction of the questions they most persistently and passionately discuss. The simultaneity principle requires considerable time and effort to identify specifics of the inquiry paying close attention to the exact wording and provocative potential of the questions that will be asked right from the beginning (Bushe and Kassam, 2005).

The **Poetic Principle** proposes that organisational life is expressed in the stories people tell each other every day, and the story of the organisation is constantly being co-authored. The words and topics chosen for inquiry have influence far beyond the meaning of the words themselves, they invoke sentiments and understandings. In all phases of the inquiry effort is put into using words that invigorate and inspire the best in people (Bushe and Kassam, 2005). Bolton (2010) adds that storytelling is the way we make sense of a chaotic world and the many roles we have within it.

The **Anticipatory Principle** conceives that what we do today is guided by our image of the future. Human systems are forever projecting ahead of themselves a horizon of expectation that transports the future powerfully into the present as a mobilising agent. AI uses artful creation of positive imagery on a collective basis to modify anticipatory reality (Cooperrider and Whitney 2001).

The **Positive Principle** proposes that momentum and sustainable change requires positive affect and social bonding. Sentiments like hope, excitement, inspiration, camaraderie and joy increase creativity, openness to new ideas and people, and cognitive flexibility. They also promote the strong connections and relationships between people; particularly between groups in conflict, required for collective inquiry and positive change (Kessler, 2013). The more positive a question is correlates to the effort and lasting success of the change effort (Cooperrider and Whitney, 2001), this is through a nurturing process looking to maximise the effectiveness of unconditional positive questioning.

The main intervention model associated with AI is the 4-D cycle (Cooperrider and Srivastva, 1987). It wasn't until 1997 that the model, now almost universally described as the AI method, was created (Bushe, 2011). The 4-D cycle is based on the principles for the practice of AI described in the seminal work by Cooperrider and Srivastva (1987). The model identifies four phases in AI that occur after the '*affirmative topic*' is chosen. The topic is the focus of the inquiry such as increased customer satisfaction, improved health and safety, more effective operations; however it is phrased in lively, inspiring language for example; inspiring fanatically loyal customers (Kessler, 2013). There are a number of practitioners who note that the 4-D model missed an important initial step; identifying and defining the focus of the inquiry. Cooperrider's terminology was that of affirmative topic and many models have retained this name.

Discovery. During this stage participants reflect on and discuss the best of '*what is*' concerning the object of inquiry. Often participants are interviewed about their own '*best of*' stories and this is recognised as an innovative approach to adding value through AI (Kessler, 2013). Team members are asked for their personal experience of the '*affirmative topic*' [the focus of the inquiry] at its best; their best work / team work or customer satisfaction experience for example. The importance of narrative to processes of organising has been stressed by a number of AI theorists who describe organisational life as a narrative. Organisations make themselves understandable to their members and stakeholders through the stories they convey (Ludema, 2002).

A further innovation has been to have organisational stakeholders act as both interviewers and interviewees, facilitating full engagement of all members in the inquiry itself. Sharing and listening to meaningful, personal stories is considered central to creating widespread engagement and building relationships in the early stage of change processes. This is achieved by turning the topic into a question, facilitating answers stimulated by the stories identified and shared with others (Kessler, 2013).

Dream. During this stage participants are asked to imagine their group, organisation or community at its best in relation to the affirmative topic. An attempt is made to identify the common aspirations of system members and to symbolise this in some way. Imagining the future in a positive manner often results in something more symbolic, like a graphical representation, rather than a formal written down mission statement (Bushe, 2011).

Design. With a common dream in place, participants are asked to develop robust proposals for the new organisational state. Initially Cooperrider called these

'provocative propositions' a phrase linked to generative theory. Social architecture processes are employed where a model of design elements is used to identify categories for participants to organise around and create change proposals, these are often called possibility statements or design statements (Watkins and Mohr, 2001). The essence is on planning and prioritising processes that work well to achieve the common dream by building on current strengths and experiences.

Delivery/Destiny. In the initial 4-D model the fourth stage was called Delivery but this was subsequently changed by Cooperrider to Destiny as he found that Delivery conjured up images of traditional change management implementation. The changes are implemented in this phase; widespread agreement for the design statements are sought, an event is orchestrated where participants make self-chosen commitments to take action consistent with any design element, and leadership makes clear that there will be no action plans or committee.

All participants are authorised to take those actions they believe will help bring the design to fruition. Leadership's role is to monitor and support those innovations they want to nurture and create events and processes to energise emergent and self-organising change (Bushe, 2011). Engaging the right people, especially powerful sponsors, in identifying a focus that is of high interest to those leading the organisation whilst being compelling to stakeholders is commonly held to be critical to overall success (Barrett and Fry, 2005).

Many different approaches to AI have been identified, ranging from a sole consultant or small representative group working on behalf of a larger group, to those where most or all of the whole system is engaged in the entire 4-D process. This is often completed in a compressed time span with the majority of transformational change programs consisting of the latter example of whole system engagement (Bushe, 2011). This has led to an increasing emphasis in the AI literature on widespread, synchronous engagement as central to successful AI change efforts.

One particular variant, the AI Summit (Kessler, 2013), has become the most often advocated form of engagement; ideally planned as a four day event in which all system members complete all four phases. There are some voices that caution against seeing AI as an *'event'* however large-scale it is, and argue that it is more effective to think of AI as a longer-term process including frequent interactions at work as people discuss the inquiry and are impacted by new exchanges.

AI has had a profound impact on organisation development practice around the world in business, non-profit, and governmental organisations as well as communities (Kessler, 2013). AI does not '*magically*' overcome any of the requirements for effective leadership, resourcing and skilled facilitation for organisational development; its unique significance has been in bringing social constructionist theory into widespread consideration in managerial practice distinguishing '*possibility centric*' versus '*problem centric*' change strategies.

This makes for a compelling examination of the impact of positive emotions on change processes; offering generativity, instead of problem-solving as a process to address social and organisational issue. "*When successful, AI generates spontaneous; unsupervised; individual; group and organisational action toward a better future*" (Bushe, 2007, p. 30).

Summary of AI

AI was a previously unknown topic area to the researcher, however through the literature review it was evidenced that the positivity espoused through an AI approach can be a differentiator in performance and colleague engagement opportunities. It was evidenced from the respondent feedback that DP DHL can at times, portray a '*glass half empty*' approach, AI can positively affect this and this is evidenced within the reflective and recommendations sections.

2.13. SUMMARY

Within the scope of the thesis, understanding the contributory elements of successful CI implementation were identified. This was achieved to a high degree due to the wide scope of research undertaken, including domain areas previously unknown. There were a number of differences relating to published authors' perspectives and opinions relating to numerous areas researched and an attempt has been made to provide a broad spectrum of opinion offering a balanced perspective to the reader.

Whilst the literature review was wide in scope it is acknowledged that there was a knowledge lacunae present within the research. The topics were chosen due to their potential impact on the success of CI implementation and it is recognised that numerous other areas may have provided either further supporting or contrasting evidence regarding the importance as to what is relevant to CI implementation. Within the thesis it was not possible to broaden the scope any further and this is discussed within the limitations section of the thesis. It is suggested within the literature review

that there is a correlation between OL and successful CI implementation, an identified objective of the thesis. This was found to be proven and is detailed within the recommendations section.

The theoretical model below (see Figure 23) provides a set of identified stages commencing with OL with a proposed pathway to enhancing colleague engagement, leading to successful CI implementation. The colour coding and size of block is a suggestion as to the importance (colour) where red is critical towards green as non-critical, and size (scope) where larger is more complex to accomplish.

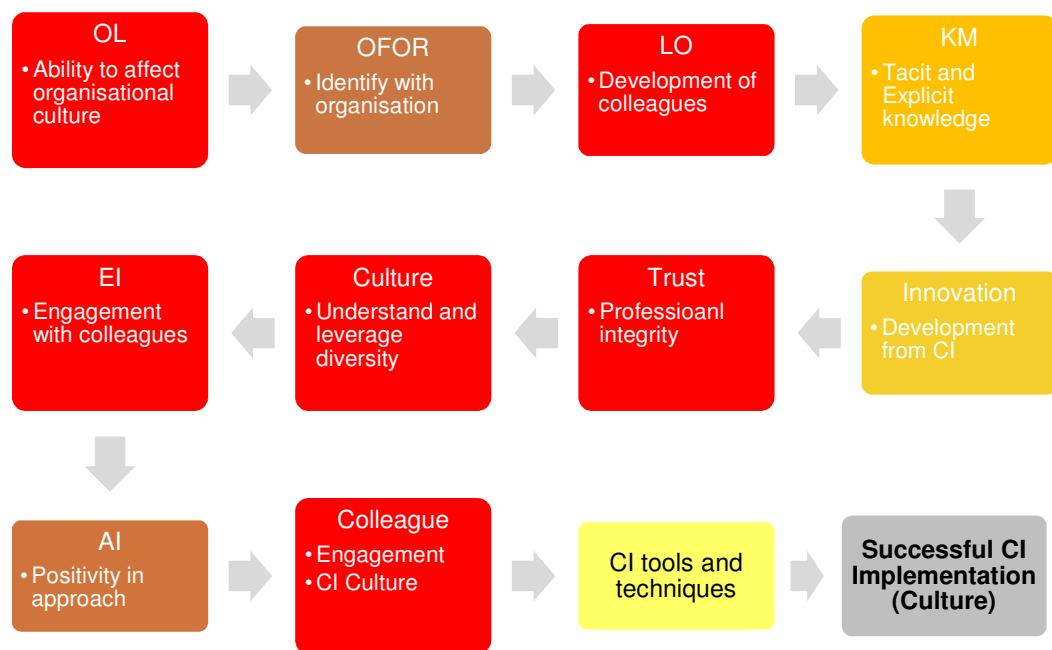


Figure 23 - CI Implementation Model (Author's Own, 2015).

Organisations that meet the above '*journey*' criterion lead to a position whereby colleagues are more open to a CI culture, through positive engagement, providing the foundation to implement CI programs successfully. The final element in this concept, often the first to be actioned in organisations, is the task-orientated application of CI tools and techniques relevant to the particular organisation and / or situation. There is no guarantee of success, however organisations that can meet all or a majority of the areas identified find themselves in a stronger position with regards to how they can successfully implement a CI culture.

In order to provide the reader with an overview of the literature and how it supported the development of the semi-structured interview questions, a Systematic Review of Literature Table is provided (see Table 11).

Domain	Search method	Database / Library	Research question, plus supplemental questions	Methods
OL	Key word Search	Proquest / Sage / Library Catalogue	Q3) Symbiotic Relationship between OL and CI.	Literature review / Library
OFOR				
LO				
KM				
KM	Key word Search	Proquest / Sage / Library Catalogue	Q4) Understanding of KM.	Literature review / Library
OL				
OL	Key word Search	Proquest / Sage / Library Catalogue	Q5) What is your perspective relating to the interaction between CI / PI and innovation.	Literature review / Library
Innovation				
OL	Key word Search	Proquest / Sage / Library Catalogue	Q6) Incentivising colleagues to support Innovation / CI implementation.	Literature review / Library
Cultural Models				
OL	Key word Search	Proquest / Sage / Library Catalogue	Q7) Understand areas of importance for delivering CI training programs.	Literature review / Library
LO				
Trust	Key word Search	Proquest / Sage / Library Catalogue	Q8) Respondents perspective on trust within DP DHL	Literature review / Library
KM				
Innovation				
Cultural				
EI	Key word Search	Proquest / Sage / Library Catalogue	Q9) What skills are necessary to implement CI programs? Individual / organisation.	Literature review / Library
Innovation				
Cultural Models				
AI	Key word search	Proquest / Sage / Library Catalogue	Q10) What do you know of Appreciative Inquiry (AI) approach to implementation / issues resolution?	Literature review / Library
EI				

Table 11 - Systematic Review of Literature (Author's Own, 2015).

A number of authors were acknowledged within the literature of having influenced specific areas of theory including, Kolb and Fry for learning cycles, Daniel Goleman for EI and David Cooperrider for AI with numerous other published authors using these base platforms to launch their particular research and models.

EI was identified as an important contributor to the skill set requirement of CI implementation managers; without consideration to EI, managers and organisational

leaders may not reach their full potential or embed the messages they plan deliver to their colleagues. In support of this, the behavioural competencies relating to EI were discussed in respect to how leaders manage cultural differences successfully.

AI was recognised a having a strong potential to affect the success of CI implementation. The positive-focused-thinking, rather than deficit-focused-thinking (Watkins and Mohr, 2001) may provide the differential in unlocking colleague potential and this is developed within the conclusions and recommendations.

It was important for the literature review to provide direction for the semi-structured interview process through identification of topic relevance and depth of interview questioning in the areas of interest identified. This was realised through the literature review providing high value information utilised to form the semi-structured interview questions aligned with the aims and objectives of the thesis detailed in Chapter 3.

CHAPTER THREE – RESEARCH PARADIGMS AND METHODOLOGY

3.1. INTRODUCTION

This diagram (see Figure 24) illustrates the academic learning supporting the path of the researcher with regards to the development of skills in research methodologies. The highlighted timeline is spread over an eleven year period, taking into account studies undertaken between 2004 to the present day.

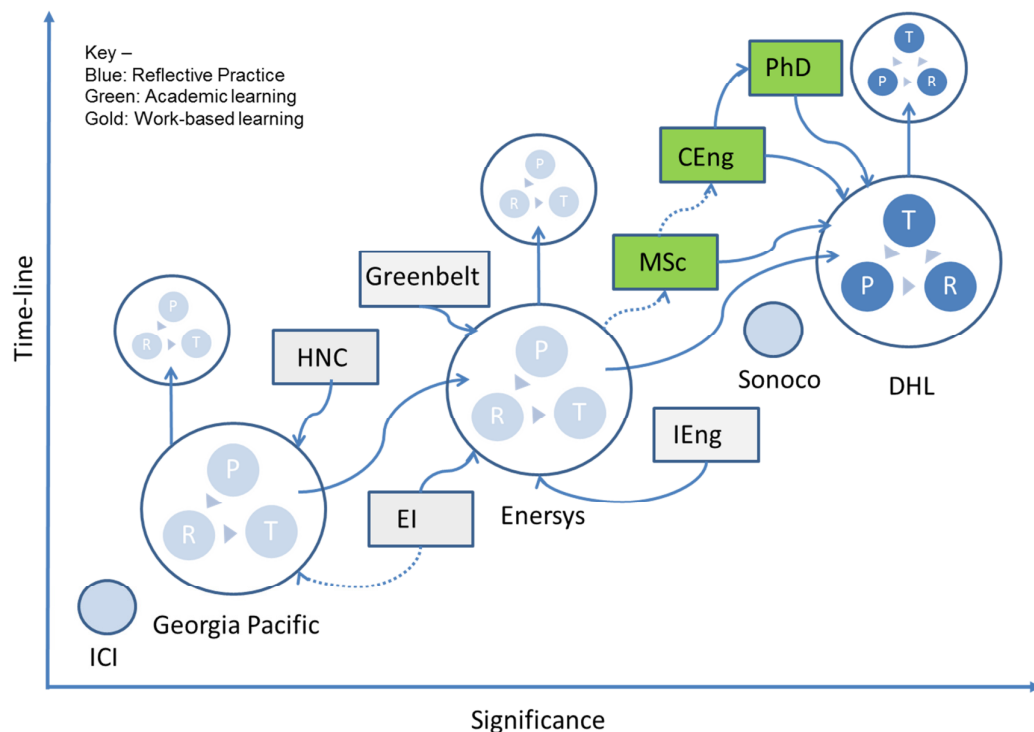


Figure 24 – Academic pathway, (Author's Own, 2014).

Reflection was fundamental in the approach to my study and therefore led me to devote considerable time reflecting and subsequently determining what I considered to be my preferred research paradigm, method and Knowledge Management (KM) philosophy. The aims and objectives of the thesis are defined within this chapter. The preferred research methodology is identified, the sample size of the semi-structured interview population is discussed, and the method of data analysis utilised is described. The PhD was developed through a professional practice approach to learning and a review of this method is undertaken.

3.2. PhD BY PROFESSIONAL PRACTICE

I approached the PhD from a professional practice route supported by over twenty years experience working within the Continuous Improvement domain. The expectation in this situation is that the student displays evidence of working at doctoral level through articulation of their arguments, innovative content of their work, developing creative solutions where required, application and implementation of concepts derived, with an essential element of this being how they interact with their academic organisation.

A review of Kuiper (2011, p. 63) suggests that the demographics of the student have changed dramatically, they state that: “*Adult professionals are continuing their learning over the lifespan entering graduate school in their thirties, forties, fifties, and, even sixties. Knowledge is the new economic currency today and the increasing rate at which new knowledge is generated in the global world requires continuous learning*”. In support of this view Stokes (2005) suggest that previously labelled ‘*non-traditional*’ adult learners juggling jobs and family while studying part-time and working full or part-time are the new tradition in higher education.

Shapiro (2003, p. 154) details the Fielding Graduate Institute’s innovative PhD program in Human and Organisation Development (HOD); this is centred on the following approach to the learning process:

- Learner-centred rather than teacher-centred: beginning with learners’ needs, purposes, and goals, not with teachers’ agendas, ideas, and methods;
- Problem-focused rather than subject-focused: building the learning process around situations and problems that learners confront in their own lives, not around learning particular subject matter out of context and for its own sake;
- Inquiry-directed rather than answer-directed: using learners’ questions to drive the learning process rather than learners’ acquisition of predetermined answers;
- Holistic rather than purely cognitive and rational: recognising the emotional, kinaesthetic, and spiritual dimensions of learning;
- Experiential rather than purely educational: helping students learn from reflection on and in experiences as well as from books and lectures;
- Collaborative rather than competitive: enabling learners to use one another as colleagues, resources, and co-learners, not as competitors for teachers’ approval and for the highest grades;

- Integrated rather than discipline-based: approaching problems and topics from a multi-disciplinary perspective;
- Constructivist rather than transmission-based: enabling learners to construct their own meaning and knowledge rather than transmitting to them others' ideas of the truth;
- Person-centred rather than role-centred: enabling learners and teachers to engage one another as authentic persons who are colleagues in the learning process, each with their own wisdom and expertise, not solely as expert and protégé, fountain of knowledge and vessel to be filled.

The HOD model, Kuipers (2011), incorporates flexible degree programs designed for older and full-time working students who have already established themselves professionally, whereby achievement is based upon the development of competence into new areas allowing a level of latitude in professional practice. Shapiro (2003) supports this discussing the positive attributes of new learning applied to practice in order to develop new knowledge to inform their work and the work of others. Watts (2009, p. 1) perspective on the transition from professional to PhD student suggests that:

“Becoming a professional involves the undertaking of professional education and training that are founded on a broad base of learning and culture that serves as a professional apprenticeship. Aspects of professionalism are commonly learnt through a process of role modelling and observing the practice of colleagues that can be understood as a community of practice... Increasingly, professionals are expected to undertake ongoing education and training that is now seen as an integral component of professional practice that can respond effectively to changed requirements in the practice environment. In some arenas the enhancement of professional practice skills and knowledge has become associated with higher level academic study and so in recent years we have seen an increase in the numbers of experienced and highly skilled professionals, already with postgraduate qualifications, return to education to follow doctoral study, in some cases sponsored by their employer”.

The decision made by highly experienced professionals to undertake doctoral study and become members of a research community has the consequence of requiring them to ‘graduate’ towards full participation within an academic culture. This is achieved through acquisition of a range of research skills and often re-learning ‘*how to be a student*’ (Watts, 2009). This transition can be stressful and challenging as students enter the uncertainty often associated with being a novice academic researcher.

Despite this, there may be some advantages for research students who bring a range of transferrable, professional skills to their study (Watts, 2009). They continue suggesting that professionals are likely to bring project management skills, strong organisational skills and the life skills of balancing competing demands of personal and professional time. They are likely to be highly motivated to complete their study with, in many cases, the research topic based on an aspect of their professional practice. These skills, characterised as attributes of maturity, facilitate students to negotiate the range of complex academic tasks of doctoral study (Watts, 2009).

My approach to life-long learning is evidenced through the journey to Chartership over a fifteen year period, coupled with previous academic learning to MSc level in 2006. The feeling of going through a deconstructive process from professional role to novice researcher was difficult to comprehend at times, causing some frustration, lack of confidence and unease that required positive support to overcome. As a sponsored student the added pressure of employer expectations both financial and ‘*failure is not an option*’ emotional awareness, add to the self-delineating feeling of uncertainty. On reflection, I can directly associate with Watts (2009) comments above, and it is only at the point of completing the PhD that I feel relatively comfortable residing within the ‘*academic world*’ I joined some three years previously.

The Quality Assurance Agency (QAA) for Higher Education developed a document detailing the context for the characteristics of doctoral degrees. Harris (1996, 6.4), cited in (QAA, 2011, p. 5) comments that:

“Institutions, in determining the nature of the courses which they provide, and the level of entry to these, need to pay particular regard to the employment opportunities that follow post-graduation study, as part of assuring the quality and standards of the provision”.

The researcher has been employed at a professional, senior engineering and operational level for a number of years leading to Chartership, completing an MSc. It is therefore reasoned that the entry and employability criterion is fully met.

As secondary expectation of the (QAA, 2011, p. 7) is that:

“All UK doctorates, however, continue to require the main focus of the candidate's work to be their contribution to knowledge in their discipline or field, through original research, or the original application of existing knowledge or understanding. In professional and practice-based doctorates the research may be undertaken in the workplace and may have a direct effect on improving the professional practice of individuals and their host organisation”.

The outputs from the thesis; specifically the contributions to theory and practice, have supported these criterion. These include the development of the CI Implementation Model; the provision of a formal CI implementation presentation in support of DP DHL CI strategy review; the McKibbin 2014 Research Award for a thesis researching '*What is Continuous Improvement?*' and '*What is current best practice?*' in the context of a logistics organisation, and the proposal to use an Appreciative Inquiry (AI) approach to colleague engagement driving discretionary effort through the DP DHL Certified Supply Chain Specialist (CSCS) program.

By the professional practitioner having a rigorous approach to their professional practice; coupled with relevant academic theory, and applying this to the solution of problems, the creation of new solutions or introduction of positive change at the workplace is, by their very nature interdisciplinary. They are working on doctoral level, dynamic, multi-faceted and complex issues (Maxwell, 2003).

This section has reviewed the PhD by Practice route to doctoral level study, including the growing acceptance of this method within published literature across the wider academic community.

3.3. RESEARCH PARADIGMS

Understanding the differences between theory and practice (Bryman and Bell, 2007) was essential to ensure that I understood whether the direction I was planning to take was a good fit for the desired outcomes I was looking to achieve. It was interesting to read, for example, that the management consultant uses '*bits and pieces*' of theory to contribute to practice, whereas the academic scholar contributes to theory through using fragments of practice, however fundamentally their roles are closely related (Gummesson, 2000).

Gummesson (2000) sees the value of both groups with their ability to convince the business community that their findings are relevant and useful as the primary objective rather than the method used to achieve it. Becker (1996, p. 10) offers an interesting perspective in that: "*Practitioners of qualitative and quantitative methods may seem to have different philosophies of science, but they really just work in different situations and ask different questions*". There is widespread recognition that people can do good work using differing paradigms as long as they adhere to underlying assumptions (Herbert and Rubin, 2012).

The term theory is used in a variety of ways with its most common meaning to be an explanation of observed regularities (Bryman and Bell, 2007). Researchers generally reflect on their philosophy of science through examination of their own ontological, epistemological, and methodological assumptions or premises in relation to research paradigms and apply research methods consistent with their personal assumptions (Guba, 1990).

Haase and Myers (1988) see paradigms as a worldview or a philosophy of science that includes a research approach or orientation and assumptions inherent in that worldview. Humans are characterised by their capacity for abstraction and imagery, language and thought, sensation and emotion and identify persons, families, and communities reflecting on their innovative wholeness (Rachner and Robinson, 2002). Researchers have taken up different epistemological positions, situated themselves in various research paradigms, applying single or combinations of methods to produce knowledge that adds to understanding of the world and science. Methods are not necessarily paradigm specific; consistency should be apparent between the assumptions that underpin the research and method applied. Scholarly researchers make assumptions and principles explicit whilst demonstrating sound judgment in implementing traditional methods and creating new techniques (Rachner and Robinson, 2002).

Gill and Johnson (2010) explore the need to answer three questions prior to any study taking place, they suggest there are always tacit answers to the following questions called '*the researchers pre-understanding*' and they are as follows:

- About ontology (what are we studying?)
- About epistemology (how can we have warranted knowledge in our chosen domains?)
- And about axiology (why study them?)

The ability to answer these questions will have a formative impact on the methodological engagement decided upon and without answering said questions it would be difficult to engage with the area of interest identified (Gill and Johnson, 2010). They go further exploring the way we make philosophical assumptions in dealing with the questions implicitly, presenting different normative specifications which are justified by particular rationales. This may impact on the way we judge or evaluate any findings from research, including the quality therein.

Since the 1990's there has been a move towards researchers having a reflexive approach in order to understand how their thinking and beliefs can affect the areas of research under scrutiny. Gill and Johnson (2010, p. 8) discuss how this involves reflecting upon how those often tacit, unacknowledged pre-understandings impact upon:

- How those '*objects*' of research are conceptually negotiated and constituted by the researcher;
- What kinds of research questions are then asked by the researcher;
- How the results of research are methodologically arrived at, justified and presented to audiences for consumption;
- How those results are then, or should be, evaluated by interested parties.

Strauss and Corbin (1998) suggest that a researcher does not begin with a preconceived theory in mind unless they are developing a previously existing theory; they begin with an area of study and allow the theory to emerge from the data. Theory derived in this manner is more likely to resemble reality than theory derived from putting together a series of concepts based upon experience or solely through speculation as to how one expects the results to transpire.

Knowledge takes numerous forms from intuitive that is based on feelings rather than facts, authoritative knowledge derived from published works, for example '*Gurus*' working in a particular field and / or known facts. When knowledge is derived through reasoning, such as from point A to a point B this is known as logical knowledge followed by empirical knowledge based on demonstrable, objective facts determined through observation, experimentation and reflection of previously obtained studies. Research often makes use of all four of these ways of knowing from the intuitive '*why am I researching this particular area and what does it mean to me?*' to authoritative when reviewing professional literature in support of research aims. At the point where recommendations and conclusions are drawn a logical approach would be used with empirical knowledge supporting any findings derived (Henrichsen et al. 1997).

A number of reasons are offered (Herbert and Rubin, 2012) as to why the need to understand differences in philosophies of research are important and understanding the assumptions behind the research tools chosen. A brief outline is offered below:

- The assumptions provide guidance for conducting your research. They prescribe your research role and whether you should try to be neutral or let your own personality come through. They indicate whether you must ask each person in a study the same questions in an identical way or can change questions midstream;
- Dissertation committee members, institutional review board members, and journal reviewers and editors might follow different research philosophies from yours and may be unwilling to accept the legitimacy of your approach unless you can make its assumptions clear;
- You have to comply with the research standards specific to the research paradigm you are using rather than those that guide alternative approaches;
- Understanding the theoretical assumptions helps you recognize what the techniques you are working with do well and what they do less well, and lets you design your research to take full advantage of their strengths and compensate for their weaknesses.

In summary, the assumptions of the research paradigm guide how you work; secondly, they enable you to explain the methods you are using, thirdly, each research paradigm comes with its own standards for evaluating the quality of research. Fourthly, fully understanding the assumptions that underpin the techniques you plan to use affirms confidence to build on the strengths and offset the weaknesses of those techniques (Herbert and Rubin, 2012).

The term '*empiricism*' has a number of meanings; however two stand out (Bryman and Bell, 2007). Firstly it is used to identify the general approach to the study of reality and suggests that only knowledge gained through experience and sensing are acceptable, inferring that they must be subjected to the rigours of testing before being considered as knowledge. The second meaning relates to the first referring to a belief that the accumulation of facts is a legitimate goal in its own right, this being identified within the literature as '*naïve empiricism*'.

According to Gill and Johnson (2010) empiricism suggests that social and natural science must be limited to explaining the phenomena that are directly observable whilst avoiding bias by using the most appropriate research methodology. Compliance with this affords the researcher the ability to objectively observe the real world '*out there*' without contaminating what is found during the act of observation.

Empiricism invites consideration of another question in so far as any research is linked to theory, that being what was the role of that theory? Two perspectives are offered, deductive theory guides and influences the collection and analysis of data and inductive theory occurs after the collection and analysis of some or all the data associated with a project (Bryman and Bell, 2007). The differences between deductive and inductive theory are summarised below.

Deductive theory is the process of arriving at conclusions through interpretation of data analysis (Sekaran, 2000). It relies on the understanding of a particular domain and theoretical considerations to that domain in order to deduce hypotheses (Bryman and Bell, 2007). These are then subjected to empirical examination before providing any outputs of the hypothesis raised. Deductive logic requires the development of conceptual and theoretical structure prior to its testing through empirical observation of known facts in the world through data collection (Gill and Johnson, 2010). This is in line with Kolb's (1984) learning cycle (see Figure 8) left-hand side, as it commences with abstract conceptualisation and moves to testing through the application of theory, leading to new experiences or observations.

Inductive theory differs in that it is a process whereby we observe certain phenomena and on the basis of this conclusions are drawn; in essence a general proposition can be reached based on observed facts (Sekaran, 2000). It involves the construction of explanations and theories of what has been observed (Gill and Johnson, 2010) indicated by Kolb's learning cycle (see Figure 8) right-hand side, as it suggests learning through reflection of past experiences and through the formulation of categories classified or differentiated through observations.

Bryman and Bell (2007, p. 12) develop this further suggesting that induction infers the implication of respective research findings being fed back into the stock of theory associated with a certain domain of enquiry. There are several reasons why a researcher may change their view of the theory and literature under review through analysis of the collected data and these are noted here:

- New theoretical ideas or findings may be published by others before the researcher has generated their findings;
- The relevance of a set of data for a theory may become apparent only after the data has been collected;
- The data may not fit with the original hypothesis.

The above suggests that induction prevails where the process of drawing generalised inferences out of observation occurs, whereas deduction remains dominant when theory leads to observation and findings. Gill and Johnson (2010) discuss a variant of this from theory to testing, leading to observation; this is in contrast to observation of the empirical world leading to building of a theory. Bryman and Bell (2007) capture this succinctly:

Theory → observation / findings,
With induction the connection is reversed:
Observations / findings → theory

Once the phase of theoretical reflection has occurred the researcher may require the collection of additional data to support or oppose the position whereby a theory will or will not prevail. This strategy is often referred to as '*iterative*' as it involves the weaving in and out of data and theory, based on grounded theory (Bryman and Bell, 2007).

Strauss and Corbin (1998, p. 12) describe grounded theory as: "*theory that was derived from data, systematically gathered and analysed through the research process*". Whilst data is key to grounded theory, creativity of the researcher is also identified as an essential ingredient (Patton, 1990). Patton believes that qualitative evaluation requires both critical and creative thinking, capturing the science and art aspects of analysis concurrently. Patton (1990, p. 434-435) lists behaviours they found useful to promote creative thinking including:

- Being open to multiple possibilities;
- Generating a list of options;
- Exploring various possibilities before choosing any one;
- Making use of multiple avenues of expression such as art, music, and metaphors to stimulate thinking;
- Using non-linear forms of thinking such as going back and forth and circumventing around a subject to get a fresh perspective;
- Diverging from one's usual ways of thinking and working, again to get a fresh perspective;
- Trusting the process and not holding back;
- Not taking shortcuts but rather putting energy and effort into the work;
- Having fun while doing it.

Coding is an essential element of grounded theory, however detailing this would detract from the main research methodology explanation undertaken. The five points (identified in Table 12) identify five key elements of coding, offering a brief overview and the reader is directed towards Bryman and Bell (2007); Easterby-Smith et al. (2002); Patton (1990) and Strauss and Corbin (1998) for further reading.

CODING PROCEDURES	
1	Build rather than test theory.
2	Provide researchers with analytical tools for handling masses of raw data.
3	Help analysts to consider alternative meanings of phenomena.
4	Be systematic and creative simultaneously.
5	Identify, develop and relate the concepts that are the building blocks of theory.

Table 12 - Coding Procedures for Grounded Theory (Patton, 1990).

Understanding where one is positioned within research paradigms led to a review of published work targeting the rationale behind qualitative vs. quantitative data gathering specifically looking at their different approaches. Researchers who use quantitative techniques and tools are positivists, whereas those who prefer to use observation, questioning and descriptive tools are known as naturalists.

Positivism is a philosophical concept referring to a particular set of assumptions about the world and appropriate ways of studying it. In general, positivists see society as more important than the individual (McNeill, 2005). Positivists assume reality is fixed, measurable and that there is one truth, one external reality. They pride themselves on the repeatability of the results should a secondary survey take place using the same parameters. If a survey is completed they know in advance the information that can be acquired. There may be some surprises in the correlations between the data gathered, however there will not be any surprise data, in essence things you didn't ask about but were told anyway (Becker, 1996). A partial exception to this might be the use of open-ended questions, however the questions are not asked in a way as to encourage unanticipated data suggesting new variables. Stringer (2007) supports the above suggesting that positivistic research is based upon the precise definition, measurement and analysis of the relationship between a carefully defined set of variables.

In contrast naturalists assume that reality constantly changes and can only be known indirectly, through the interpretations of people; they accept the possibility that there are multiple versions of reality. Individuals who can tolerate uncertainty are more likely to favour a qualitative paradigm with its acceptance of multiple perspectives of truth and constantly changing reality (Becker, 1996).

For positivists, the goal is a universal truth, a rule or explanation that is always true so long as specified conditions hold. For the naturalists, what is discovered is embedded in a complex and changing reality from which it cannot be reasonably abstracted (Herbert and Rubin, 2012). This crosses the tacit / explicit boundaries of learning and KM as discussed within the main literature review, hence the cocktail of methods and types of data gathering affords a complex environment from which to learn from.

Positivist and naturalistic paradigms have important variants and they are discussed here briefly. Naturalists who emphasise that meaning is sifted through people's prior experience and biases are called constructionists because they believe that people build or construct their understanding of the external world as they see it. Naturalist and constructionist researchers accept that researchers, as well as research subjects, make interpretations and that it is neither possible nor desirable for the researcher to eliminate all biases or expectations.

Under the auspices of a naturalistic / constructionist paradigm, the fact that the interviewers or observers may reach different conclusions is not considered to be problematic, since meaning is always contextual and always interpreted (Herbert and Rubin, 2012).

Postpositivism is a spin-off and reaction to positivism; it is less sure than classical positivists were it is always possible to separate the knower from the known and that there is a single shared reality which excludes all others. It is noted that postpositivists have moved toward the direction of the naturalists to argue that total neutrality of the researcher is not possible and that there may not always be a single reality that is acknowledged by and shared by all (Herbert and Rubin, 2012).

Within the naturalistic paradigm, interpretive constructionism argues that the core of understanding is learning what people make of the world around them; how people interpret what they encounter, and how they assign meanings and values to events or objects. It is taken to denote an alternative to the positivist approach working on the premise that respects the differences between people and objects. It implies that social phenomena and categories are not only produced through social interaction, they are also in a state of constant revision (Bryman and Bell, 2007).

How individuals view an object or event and the meaning that they attribute to it are what is important, rather than the exact shape or height or some other measurable parameter attributed to it. Interpretive constructionists understand that people look at

matters through distinct lenses and reach somewhat different conclusions based on their worldview and bias. Multiple, apparently conflicting versions of the same event or object can be true at the same time for differing individuals with a simple analogy of discussions taking place about an old car. One may see it as a pile of junk ready to be scrapped, whilst another will talk about it with endearment based on some previous relationship, knowledge or encounter (Herbert and Rubin, 2012).

Blumer (1969) suggested that all social scientists, implicitly or explicitly, attribute a point of view and interpretation to the people whose actions they analyse. We '*always*' describe how they interpret the events they participate in; so the only question is not whether we should, but how accurately we do it. We can find out what people think they are doing; what meanings they attribute to the objects, events and people in their lives including experiences, however this is not an absolute outcome.

Researchers do this by talking to them; in formal or informal interviews, in quick exchanges while we participate in and observe their ordinary activities, watching and listening as they go about their business. The nearer we get to the conditions in which they actually do attribute meanings to objects and events then the more accurate our descriptions of those meanings are likely to be.

The approach of Blumer (1969) would support confidence in a qualitative approach taking into account the above and they go further suggesting that if we don't find out from people what meanings they are actually giving to '*things*' we will, out of necessity invent them. His reasoning being that the people we are writing about must have meant this or that, or they would not have done the things they did. It is inevitably epistemologically dangerous to guess at what could be observed directly. The danger is that we will guess wrong; that what looks reasonable to us will not be what looked reasonable to them, thus devaluing the rigour of any derived outcomes.

Cultural lenses that people use to interpret situations are often taken for granted and, as such, become invisible (Schutz, 1967, p. 74). It is therefore difficult for researchers to directly ask about culture and they have to ask about ordinary events and deduce the underlying rules or definitions from responses paying particular attention to the ways words are used and to the stories that convey cultural assumptions.

Gergen (1999, p. 50) comments that: "*The ability to get into the world of someone who does not share one's own lenses requires an ability to first recognise and then suspend one's own cultural assumptions long enough to see and understand another's*". It is

not about being neutral, however understanding what one's own biases are and how they may influence the outcome of your research is central. You need to take action in order to recognize your own expectations and learn how to listen to someone whose understandings are radically different from your own (Herbert and Rubin, 2012).

3.4. RESEARCH METHOD

The intention of the thesis was for the researcher to gain an epistemological perspective of the key factors affecting Continuous Improvement (CI) implementation programs. A PhD by Practice was undertaken as the preferred approach to support this with the rationale being that the researcher has twenty plus years working within the CI environment professionally, and through the use of reflective practice a number of existing paradigms could be explored, compared and contrasted.

Firstly, the CI suite of known tools widely available would be appraised to afford the reader a basic understanding of what they are and why we use them whilst considering if they had a significant impact on the implementation processes of CI. Secondly the delivery method of CI training and implementation programs would be interrogated to explore the potential impact of differing delivery methods focusing on academic (explicit) and / or experience (tacit) based approaches to learning. The literature review explored a number of areas; organisational and people focused, looking for similarities to implementation of other programs comparable to CI allowing parallels of good practice to be drawn and utilised should they be evident.

Understanding the importance of organisational belonging for constituent members led to a thorough review of the importance of Organisational Learning (OL) and the potential symbiotic relationship with CI implementation programs. Having conducted the literature review it was evident that there are wide-ranging impacts to take into consideration, including the soft and hard skills of the individual and the culture of the organisation as a whole for successful implementation of CI. These are key learnings that will be further explored in the third reflective element of the thesis and subsequent conclusions and recommendations.

3.5. RESEARCH AIMS AND OBJECTIVES

The thesis aims were to:

- Understand what is presently considered as best practice for CI implementation programmes and evaluate against current DP DHL practices.
- Identify how to successfully implement CI programmes across multiple DP DHL sites in a consistent manner across UK and the wider region of EMEA.
- Determine the potential for a symbiotic relationship existing between organisational learning and CI. If proven investigate how this can provide mutual benefit through implementation programmes.
- Development of a Continuous Improvement Implementation pack. This is envisaged to provide a framework of how to approach implementation by defining key steps that local teams will interpret to fit their own cultural diversity. Target audience identified as site General Managers and CI/PI practitioners.
- Evaluate and propose competency framework for CI implementation managers, taking into account emotional and cultural divergences.

The thesis objectives were to:

- Expand the present understanding of what constitutes a successful CI implementation program and use this information to offer improvements to the process in a logistics environment.
- Design a formal process to support implementation of CI that can be adapted to suit localised differences in culture and ethnicity.
- Interrogate the depth of the proposed symbiotic relationship between OL and CI, and apply the outcome of this to support improvements of implementation practices.
- Develop a CI implementation pack through internal (DP DHL) stakeholder buy-in, identifying the key elements required for success. Pilot the process and audit outcomes, review prior to wider roll-out.
- Develop a competency framework for CI implementation managers as a precursor to involvement in CI implementation programs.

Whilst the thesis was in the latter stages of development the area previously known as Europe, Middle East and Africa (EMEA) for DP DHL has been separated into different business sectors; thus the original objectives that related to EMEA are referred to the

UK and Ireland (UK&I) as a natural fit with the new shape of the business sector relating to the majority of respondents of the interview process.

3.6. RESEARCH DESIGN

In order to answer the thesis aims and achieve the objectives a strategy was developed that would deliver appropriate data and opportunity for analyses in order to test the conclusions drawn from the literature review, semi-structured interviews and researchers reflective practices. The decision was taken to use a time horizon of cross-sectional data gathered over a short period in time presenting a '*snapshot*' (Hair et al., 2007, p. 419). This would provide a consistent response, albeit with an identified limitation noted that it affords no opportunity to determine a chronological flow of the responses to allow a theme or pattern to develop over time.

Denzin and Lincoln (1994) appreciate that both quantitative and qualitative researchers are concerned about understanding the individuals point of view, however qualitative investigators believe they can get a more defined perspective through interviewing and observation, compared to a quantitative approach relying more on remote, empirical data. Cooper and Schindler (1998) state that use of qualitative interviews in a study is a priority, with the views of management level personnel being considered important as they give an indication as to whether current theory is aligned to everyday experience.

Qualitative researchers have a tendency to use inductive analysis of data, where the critical themes emerge out of the data, with Patton (1990) suggesting that qualitative analysis requires a level of creativity to represent the raw data into logical, meaningful categories examining them in a holistic manner, leading to a structured way of communicating this interpretation to others.

There are two main methods of sampling; probability (random) or a non-probability (purposive) sample. The research questions specifically targeted DP DHL's internal approach to CI implementation, indicating that a random, external sampling of the wider population would provide limited value. The use of a purposive approach deliberately and purposely selects a particular section of the desired population to include in the sample (Cohen et al., 2007), and this '*hand-picked*' approach assists in the build-up of a sample that is satisfactory to the specific needs of the research. In many cases purposive sampling facilitates access to '*knowledgeable people*' as they have in-depth knowledge of the area of research under scrutiny (Ball, 1990 cited in Cohen et al., 2007, p. 115).

This is in line with Patton (1990) description of purposeful sampling whereby they state:

“The logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term purposeful sampling” (Patton, 1990, p. 169).

Purposive sample sizes are frequently determined on the basis of theoretical saturation, which is the point in data collection process when the value of new data no longer provides insights to the research questions. Purposive sampling is therefore most successful when data review and analysis are done in conjunction with data collection (Mack et al., 2005).

Quota sampling is considered to be a type of purposive sampling strategy; whilst at the design stage of a study, the decision as to how many participants, and which characteristics to include, is made. The characteristics may be similar to those of purposive sampling, such as age, gender, profession, however once the quota is reached sampling stops. The difference between purposive and quota sampling is not immediately evident, however quota sampling is more specific in respect to size and proportion of subsamples, including subgroups chosen to reflect corresponding proportions of the population (Mack et al., 2005).

Snowball or chain sampling (Patton, 1990), is an approach where a small number of individuals have either the knowledge or characteristics in which the researcher is interested. This population are used as ‘*informants*’ (Cohen et al., 2007), to identify or utilise their networking strength to facilitate researchers communication with those who might qualify for inclusion in the study. This is likely to be used where the desired population may be difficult to access, for example, teenage solvent abusers, because it is a sensitive topic. In contrast, a more generalised example is identified whereby a researcher is relatively new to an organisation; the snowball method may provide access to interested parties that would otherwise be missed, simply through the lack of networking or developed relationships at the time.

The terms purposeful and theoretical sampling are frequently used interchangeably in literature and many misinterpretations relate to the disparate meanings and usage of said terminology. This can lead to confusion as to how and when to use them, resulting in weak methodologies and subsequent analyses (Coyne, 1997).

Theoretical sampling is discussed by Glaser (1992) who suggests that the general process is to generate codes from the raw data, using these codes to modify or develop new codes until the categories are saturated: “*Theoretical sampling on any category ceases when it is saturated, elaborated and integrated into the emerging theory*” (Glaser, 1992, p. 102). Qualitative researchers have limited guidelines for when to stop data collection processes, these include; exhaustion of resources, emergence of regularity or going beyond the boundaries of the research (Guba, 1978).

Cohen et al. (2007) discuss theoretical saturation, whereby the researcher proceeds in gathering further data until the data reaches a point whereby differences become minimal or until the boundaries of the context of the study are reached. Theoretical saturation is the phase of qualitative data analysis in which the researcher has continued sampling and analysing data until no new data appear and all concepts in the theory are well-developed and no additional data is needed (Morse, 2004).

The group selected for the semi-structured interviews were chosen from stakeholders across DP DHL through identification of their roles, known experience within the organisation, particular interest with CI activities, seniority and availability to offer input to the survey; this being aligned with a purposive approach to the sample population.

The rationale for having a number of senior CI advocates involved was to cross-examine their understanding of the DP DHL position from varying management level perspectives; this was to test adherence to an identified outcome of the literature review suggesting leading from the top of an organisation was a fundamental requirement. When this was combined with CI practitioners and managers at middle management levels it afforded a compare / contrast opportunity of those delivering the message from higher within the organisation to those who would be expected to disseminate the information to the wider body of DP DHL colleagues.

Figure 25 indicates the relative positions of the respondents, indicating a wide coverage of roles and hierarchy levels of the group, see appendix 9 for overview of roles, division and function. The required sampling size was difficult to ascertain prior to the interview process taking place as the scope of data gathering to deliver the required depth was an unknown. This is evidenced by Cohen et al. (2007, p. 116) in that researchers will not know in advance what range of data will be required: “*it is difficult, to the point of either impossibility, exhaustion or time limitations, to know in advance the sample size required*”.

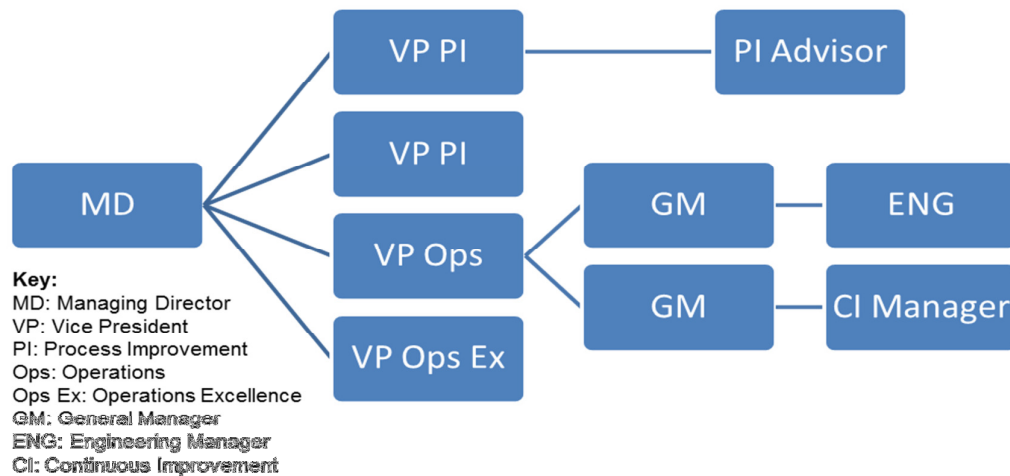


Figure 25 - Respondent roles and hierarchical levels (Author's Own, 2014).

Sampling size decisions can be complex due to the many variations of qualitative sampling described in the literature and much confusion and overlapping of types of sampling, particularly in the case of purposeful and theoretical sampling (Coyne, 1997).

Schatzman and Strauss (1973, p. 39), cited in Coyne (1997, p. 624) state that selective sampling is a practical necessity: *"shaped by the time the researcher has available to him, by his framework, by his starting and developing interests, and by any restrictions placed upon his observations by his hosts"*. They suggest that after an understanding is developed as to the criterion for the sample, observing them will support decisions as to who to sample for the respective study. Categories including age, gender, status, role or function in an organisation, and stated philosophy or ideology may support a logical starting point.

In line with the above, the selection of the individuals chosen for the semi-structured interviews were not random from a pool of similarly qualified candidates, nor were they selected by a neutral party. It could therefore be suggested there is subjective bias in their selection. Having considered this, the semi-structured interview approach did utilise a cross-section of DP DHL colleagues employed in differing functional management roles; at varying hierarchical levels, therefore any bias through the selection process was unlikely to be exhibited within the data itself.

In order to meet the objectives of the thesis, research design creates the detailed plan of how this will be achieved. Robson (2002) describes the different approaches of design and classifies them as either fixed or flexible. The most appropriate design for this type of requirement is a flexible design allowing the development of an in-depth

understanding of the subject matter area, flexible enough to be changed due to emergent information whilst allowing for a relatively small sample size and theoretical generalisation to be made.

It was evident through the interview process that the ability to marginally migrate from the structured questions defined for the interviews was an important factor as it provided the interviewer with perspectives previously unknown. The above approach can produce either qualitative, quantitative or a mixture of qualitative and quantitative data. The majority of questioning was qualitative in nature with two specific questions looking for a quantitative response.

3.7. RESEARCH METHODOLOGY

From the research paradigm review the researcher planned to take a naturalistic approach, that being interpretive constructionism. There was however a requirement within the interview process for quantitative questions to press the interviewees for an explicit score against DP DHL CI implementation capability and their perspective on the value of CI. A consideration for choosing the research methodology was the context of the organisational improvement opportunity under review, namely the successful implementation of CI programs.

The literature review highlighted the sensitive nature of this type of implementation [CI], whereby a program may adversely affect members of an organisation should it not be communicated or executed in a fair and objective manner coinciding with a need for positive leadership strategy and on-going commitment. Therefore this research will be used to enable the researcher to: “*discover new relationships, patterns, themes, ideas and so on*” (Hair et al., 2007, p. 154) and not be delineated by a positivist approach.

A consideration in the research design was to ensure that the information required to inform analysis and decision making was gathered in an efficient manner, fully utilising available resources. Bryman and Bell (2007) comment that all research is constrained by time and resources and there is no point in working on research questions or plans that cannot be completed due to time or resource pressures.

The importance of working to a timetable, detailing the different stages and milestones expected to be completed formed significant elements of the planning stage. Finding out if any resources can be made available to support the research may support completion; areas such as travel costs, photocopying, postage of documents, provision

of stationary and required software systems are all relevant and need to be understood prior to commencement so that there are no blockers identified too late within the study (Bryman and Bell, 2007).

The semi-structured interview questions were designed to test against the aims and objectives of the thesis coupled with the knowledge attained primarily through completion of the literature review with reference to the researcher's reflective practices. The respondents were geographically dispersed across the UK facilitating the completion of face to face interviews. Respondents were asked to provide their opinions and demonstrate examples where applicable in order to support their responses.

The interviews were conducted on a one-to-one basis and whilst research can benefit from a social group setting (Patton, 1990); the interviewer felt more benefit would be obtained from individual contribution and opinions rather than group. A secondary rationale dictating this approach was that the group had a wide geographical spread; the potential to arrange a mutually convenient time, date and location for all incumbents to attend was not viable.

3.8. GENERALISABILITY, RELIABILITY AND VALIDITY

There are three forms of generalisability; naturalistic, statistical and analytical (Kvale, 1996). Naturalistic generalisation depends upon personal experience and is often derived from tacit knowledge of how things are leading to expectations rather than formal predictions; it may become verbalised passing from tacit to explicit propositional knowledge. Statistical generalisation is formal and explicit, often based upon subjects picked at random from a population; however subjects may be selected through typicality or extremeness, or simply by accessibility.

An example would be where women have turned up at a victims of violence help centre, they would thus be categorised as self-selected. Outputs from these findings may provide valuable information for the affected group, however the results cannot be generalised to the population at large. Analytical generalisation involves a reasoned judgement looking at the extent to which the findings of one study may be used as a guide for another situation. It is based upon an analysis of the two situations looking at similarities and differences (Kvale, 1996).

Reliability and validity are positivist terms used in measurement psychology, for instance in the justification of intelligence tests (Gillham, 2005; Kvale, 1996). Whilst validity and reliability are striven for, reflections suggest there is likely to be some level of subjective construct by the interviewer through the interview process. Reliability in relation to interviewing as a research method refers to the degree of consistency that the interview has for the person or persons interviewed (Keats, 2000, p. 76). Validity is concerned with how well the research instrument measures what it was intended to measure. Construct validity refers to how well measures reflect underlying theoretical basis, whilst content validity refers to whether or not the questions raised sample the field of behaviour adequately (Keats, 2000, p. 77). In ordinary language validity refers to the truth and correctness of a statement, a valid argument is sound, well-grounded justifiable, strong and convincing (Kvale, 1996).

A consideration with interviews is whether the examination of the subject matter area is to a depth to be classed as good quality research, typically addressed by describing the rigour and the relevance to the subject matter area. Rigour refers to the theoretical and methodological robustness of how data has been collected. Relevance is considered in the context of its significance to practice. Hair et al. (2007) recommend the principle of applying the simplest method that will address the research effectively. In this case, the interview process was primarily based on the data gathered through the literature review whilst taking some account of the researcher's reflective practices minimising any interviewer bias from the process.

The interview questions were developed following two informal discussions with CI practitioners prior to the development of the preliminary questions used; this taking place before piloting with one interviewee. From this initial interview a number of minor improvements to the process and context of questions were made before the remainder of the interviews were conducted. This test data provided confirmation that the interview questions would allow the research objectives to be explored. This process was in line with Hair et al. (2007) who recommended pre-testing to check for relevance and clarity.

When interviewing within one's own culture we need to be aware of and adhere to politeness norms of our own society (Keats, 2000) and when interviewing a person from a different culture etiquette norms of their culture must be observed. In general the more an interviewer can learn about the culture of the respondent the more likely they are to meet their cultural expectations supporting a mutually positive experience.

3.9. THEMATIC DATA ANALYSIS

The ability to identify themes and patterns within the data to support outcomes of the interview process led the researcher to review the use of a Thematic Approach (TA). TA is a process for encoding qualitative information, the use of which supports interpretation of various aspects of the research topic (Boyatzis, 1998), identifying, analysing and reporting patterns (themes) within data (Braun and Clarke, 2006). TA does not have the same explicit claim to being a method of analysis as other forms (Braun and Clarke, 2006) however they argue that a high proportion of analysis carried out is thematic by process.

TA is often used in the exploratory or discovery stage of a study (Boyatzis, 1998), where the sampling size to gather the range of data is an unknown and was chosen as the researcher's preferred method of data analysis. An important criterion for the interview process was that the method utilised matched the expectations of the researcher (Braun and Clarke, 2006). Furthermore the process was required to support the interviewer's relatively inexperienced start-point position in relation to theoretical approaches of data gathering and analysis.

A thematic approach allows for a level of latitude as to what is to be described as a theme within the data; avoiding steadfast rules such as less than fifty percent is not a theme, whilst above fifty percent might be treated as such, hence researcher judgement is required to determine what a theme is. Part of the flexibility of TA is that it allows determination of themes and their prevalence in a number of ways. What is relevant is the manner by which consistency prevails in how analysis is undertaken (Braun and Clarke, 2006).

Boyatzis (1998, p. vii) identified the term '*theme*' as: "*a pattern found in the information that at the minimum describes and organises possible observations or at the maximum interprets aspects of the phenomenon*". Themes can be directly observed, or when at the latent level, underlying the phenomenon, generated inductively from raw information or deductively through theory and prior research.

In summary, TA involves the searching across a data set for repeated patterns of meaning. The key factor (Braun and Clarke, 2006) is that the finished product contains an account of outcomes and how they were derived, however they do not have to be particularly detailed.

3.9.1. Phases of Completing Thematic Analysis

A step-by step guide to thematic analysis is shown within Table 13.

Phase	Description of the process
Familiarising yourself with your data.	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
Generating initial codes.	Coding interesting features of the data in a systematic fashion across the entire data set relevant to each code.
Searching for themes.	Collating codes into potential themes, gathering all data relevant to each potential theme.
Reviewing themes.	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic ' <i>map</i> ' of the analysis.
Defining and naming themes.	On-going analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
Producing the report.	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis research question and literature, producing a scholarly report of the analysis.

Table 13 - Phases of Thematic Analysis (Braun and Clarke, 2006).

Phase One: When engaging in analysis the data may have been collected personally or by others on your behalf. If collected through interactive means you will have prior knowledge of the data, with a level of initial, analytical thoughts. The importance of re-reading, looking for meaning, patterns and in contrasting '*outlying data*' cannot be overstated. The process of transcription is time-consuming, frustrating and may be perceived as boring (Braun and Clarke, 2006), however reflecting on this suggests that if the researcher can see the potential positivity of providing an opportunity to familiarise the transcriber with the data it can be a useful process to complete.

Bird (2005, p. 247) shares their thoughts in relation to this, whereby they went from dreading the process of transcription to one of acknowledging it as: "*a key phase of data analysis, as an acknowledged and integral part of my data interpretation*" and be recognised as an interpretive act, where new meanings are created rather than simply a mechanical task of changing spoken words into written text.

Phase Two: Generating codes is directly related to the data obtained whereby the ideas of interest are initially coded and refer to; "*the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon*" (Boyatzis, 1998, p. 63). Coded data differs from themes in that they are broader where the interpretative analysis of the data occurs, and in relation to which arguments about the phenomenon being examined are made (Boyatzis, 1998).

Software systems are available to support coding, however if coding manually the use of highlighters, coloured pens or post-it notes are conventional means. It is unlikely that any data set will follow a non-contradictory route, the overall conceptualisation and data patterns do not have to be smooth ignoring tensions that are apparent. It is important to take account of 'outlying' data that conflicts with the dominant themes that emerge (Braun and Clarke, 2006).

Phase Three: This phase re-focuses the analysis in broader terms looking at themes, rather than codes, resulting in the codes being sorted into potential themes. Various methods can be used to assist with this process including; tables, mind-maps and post-it note approach to create '*theme-piles*'. This may lead to the creation of themes and sub-themes whilst others may still not be attributed to any theme, these would typically be known as '*miscellaneous*', stored separately, however they are not discarded. At this point you would have a perspective of relative significance of individual themes and whether some need to be combined, refined, separated or discarded.

Phase Four: At this point in the process refinement takes place, data within themes should be reviewed and new themes will emerge with meaningful coherence whilst others will have clear, contrasting distinctions. Two levels of review take place, level one is at the coded data level, requiring a decision as to whether they form a coherent pattern; if they do they are moved up to level two. If not consideration is required to either create a new theme for them or make the decision to discard them from the overall analysis.

At the level two point a similar process unfolds, however the complete data set is involved. A re-read of the data set is completed initially to check if the themes '*fit*' in relation to the data set. The secondary requirement is to code any data that has been missed in earlier coding stages and this is seen as an on-going organic process (Braun and Clarke, 2006). If the process is successful then a move to the next phase is made. A caveat is offered in that the constant refining of themes is not required, when refining adds little value to a theme, this is an appropriate time to stop the process.

Phase Five: Once a suitable thematic map [mind-map or similar], has been created a final refinement process of '*define and refine*' takes place. This creates the substance of what each theme is about, including an overview of all the themes. At this stage the scope of individual themes needs to be understood to ensure they are not too large in scope, diversity or complexity (Braun and Clarke, 2006). This is achieved by returning to the collated data extracts, organising them into a coherent and consistent account

with accompanied, supporting narratives. There may be sub-themes at this point; this is particularly useful with larger complex themes whereby splitting them out would lose some of the meaning.

Phase Six: This phase comprises of the final analysis and write-up of the report. The expectation is that the report will tell the complicated story of your data in a manner which convinces the reader of the merit and validity of your analysis. The write-up should contain enough evidence of the themes within the data, through extracts demonstrating the prevalence of the theme. The narrative has to be analytical in context, informing a compelling story in relation to the data presented. It has to go beyond description of the data and make a credible argument in relation to the research questions asked.

The interview process required data to be understood and shared with future target audiences primarily at '*face value*' without the need to theorise as to the significance of patterns seen. This was important to maintain validity and understanding of the semi-structured interview outputs, avoiding an overtly academic approach that would be difficult to share and potentially lose meaning. It is acknowledged that terms such as: "*a majority of respondents suggested...*" are open to wide interpretation as to the validity of this presenting a theme. Several authors noted by Braun and Clarke (2006, p. 83) use said descriptors rhetorically to suggest a theme exists in the data when perhaps this is not the case.

When completed in a thorough manner TA provides a credible solution to data analysis, is simple to use compared to other analyses methodologies such as grounded theory (Braun and Clarke, 2006), supporting the researcher who is less experienced. It also affords results that are generally accessible to educated general public, an identified requirement prior to the interview process taking place. Table 14 identifies a number of advantages of TA for the reader to review.

In contrast a number of disadvantages are noted (Braun and Clarke, 2006) when a TA approach is utilised. Many are driven by poorly conducted analyses or inappropriate research questions rather than the method itself. Whilst the flexibility of TA allows for a wide range of options, the outputs derived from data can be very broad, descriptive in nature, lacking interpretive power unless used within an existing theoretical framework that anchors the analytic claims made. This lack of reliability is a concern due to the potential for a wide variety of interpretations to occur from multiple researchers (Guest, 2012).

Advantages of Thematic Analysis
Flexibility.
Relatively easy and quick method to learn, and do.
Accessible to researchers with little or no experience of qualitative research.
Results are generally accessible to educated general public.
Useful method for working within participatory research paradigm, with participants as collaborators.
Can usefully summarize key features of a large body of data, and/or offer a 'thick description' of the data set.
Can highlight similarities and differences across the data set.
Can generate unanticipated insights.
Allows for social as well as psychological interpretations of data.
Can be useful for producing qualitative analyses suited to informing policy development.

Table 14 - Advantages of Thematic Analysis (Braun and Clarke, 2006).

3.10. DATA COLLECTION

The interviewer used both digital audio recording media and extensive hand written notes to record responses. The interviews were semi-structured; with open questions and further probing enquiry being used to develop responses to the fixed questions posed, providing a level of unexpected data as the interviews progressed, until a level of saturation was seen. The interviewees were all chosen for their knowledge and experience (Hair et al., 2007) of Third-Party Logistics (3PL) operations and CI / PI.

All respondents were employed by DP DHL and whilst this survey group is clearly biased towards internal experiences, the thesis objectives included a review of where DP DHL believes itself to be on the CI maturity curve. The respondents were split by their managerial positions as either CI functional based or in senior operational roles.

Although deliberated upon prior to the interviews taking place, the questions were not revealed to the respondents in advance. On reflection it was felt that whilst the responses might not always be to the depth sought with no prior knowledge it would likely encourage a more open and engaged response. The intention was to secure an immediate, first-hand account of the respondents opinions of both CI implementation and associated subject matter derived from the literature review.

All respondents were contacted by the interviewer prior to any formal arrangements being made to establish their willingness to participate in the study; similarly they all received a brief outline of the purpose of the interview and the subject matter area that would be covered. In a number of instances the interviewees were previously aware of

the researchers PhD study and saw the opportunity to be interviewed as a previously untapped method of collating data through them, potentially for future use of the organisation.

Where appropriate the interviewer travelled to locations to ensure the interviews could take place in a timely manner. This afforded an environment away from the normal distractions of the office workplace with the interviews conducted in individual, private rooms. All planned respondents agreed to take part in the study and subsequently did so. Each interview was scheduled to last for approximately one hour and fifteen minutes; the shortest a little under this time, however one interview took two and a half hours due to the respondent's unequivocal enthusiasm for the subject matter. The interviewer was known professionally to the majority of the interviewees enabling a relaxed and informal approach to the interviews. All respondents were informed of their privacy being respected and offered a copy of the thesis, on completion.

3.11. POST INTERVIEW

After the interviews were conducted, all respondents were thanked personally and sent a thank you note by email on completion of the interviews analysis by the researcher. The task of writing up the interviews was known to be a significant piece of work in its own right due to the researchers previous experience when completing a Master's degree in 2006, including a number of interviews as part of the data gathering process. O'Leary (2004) offered a number of ideas as to how to approach not only this phase of the thesis, but the paper as a whole.

From reviewing O'Leary's options the thesis was written up in line with known standard structures. It was evident [to the researcher] that understanding how to '*craft the story*' to the reader stood out as the way to approach writing up of the semi-structured interview element particularly; to be both interesting and '*readable*' for the audience, such that the logic of the structure became self-evident to the reader. O'Leary captures this commenting that: "*your write-up needs to report on your research, but it should do more... it should unfold, it should engage, and it should tell an interesting story*" (O'Leary, 2004, p. 209).

Sekaran (2000) offers objective counsel as to how to develop written work to the required standard of meeting the dual expectations of firstly, the purpose of the study and secondly, the type of audience for whom the study will be presented to. Clarity; conciseness; coherence; appropriate emphasis on important elements; meaningful

organisation of paragraphs; smooth transitions from one topic to the next; apt choice of word and specificity all falling into the category of must haves. Tact and diplomacy, combined with honesty and objectivity are essential in report writing and presentation (Sekaran, 2000).

The interview notes were subsequently transcribed, and the digital recordings copied to ensure they were not lost due to any PC hard drive or similar failure. This facilitated ease of access to enable efficient use of time throughout the TA element of the interview data review process.

3.12. SUMMARY

The diagram below (see Figure 26), illustrates the development of the research methodology. It highlights the approaches which influenced the research design based in literature, reflective practice and given the epistemological stance of the researcher.

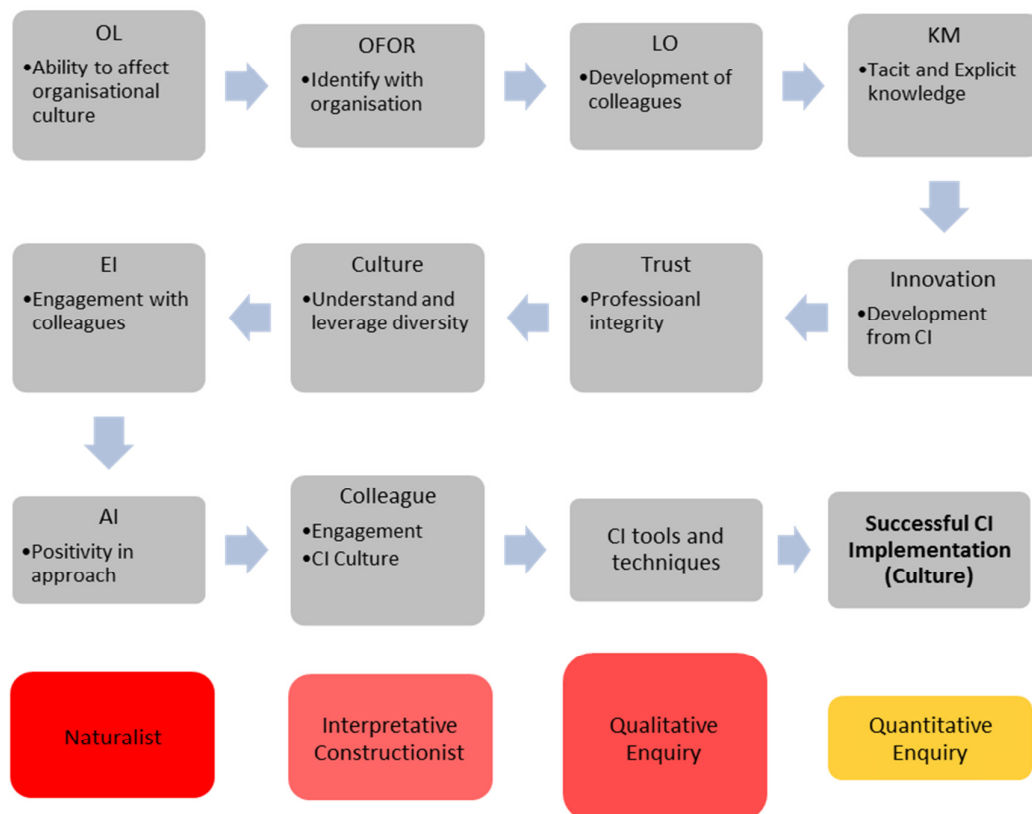


Figure 26 – Underpinning Methodology (Author's Own).

Empirical data was researched in relation to the opportunity of completing a PhD by professional practice, addressing the requirement to study at doctoral level, transitioning from professional practitioner to researcher. Literature evidencing the growing acceptance of this route to attain a PhD was examined, this supported acknowledgement of the PhD by practice equivalence to a more traditional doctoral approach within the wider academic community.

The aims and objectives of the thesis were defined in this chapter, with a brief overview of the in and out of scope expectations. The preferred research methodology was identified and the rationale for the sample size of the semi-structured interview population was discussed. The sampling size strategy must be understood prior to data gathering taking place; this affords the objective, downstream decision making process as to when the decision to cease data gathering is taken.

The method of data analysis utilised was described identifying the fit against the study research expectations. The reflective element of this chapter is that every aspect of the research methodology needs to be planned and be deliberate, with the expectation that it is '*fit for purpose*' to maintain validity of the process.

The following three chapters take the reader through the reflective practice sections of the theses including progression of the researcher's career path to the present day and expectations for the future.

CHAPTER FOUR – REFLECTIVE PRACTICE JOURNEY #1

4.1. INTRODUCTION TO MY PROFESSIONAL CAREER

The diagram below (see Figure 27), illustrates the first major reflective practice experience of the researcher which was a significant electrical infrastructure project. The relevance to this for reflective practice is that it provided the first opportunity to understand the task vs. culture elements of project management, with a realisation that both approaches are necessary for successful implementation to take place.

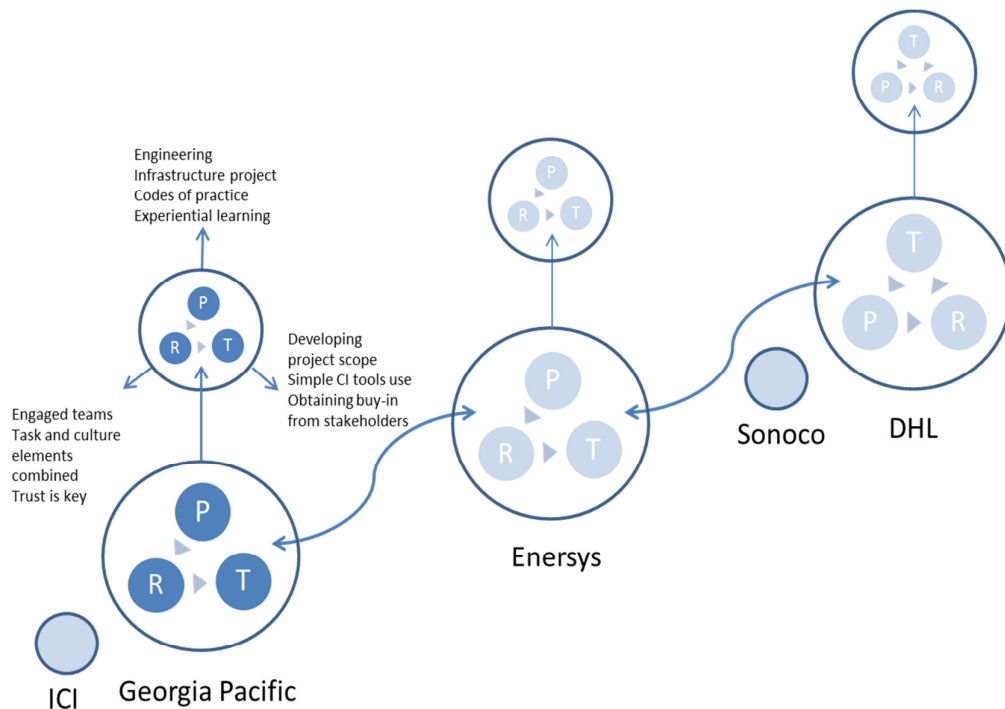


Figure 27 - Electrical infrastructure, reflective practice project one (Author's Own, 2014).

After considerable deliberation as how to assist the reader in understanding my reflective practice approach, I found what I believe to be a simple *aide memoire*, known as the Six Wise Men (Jasper, 2013, pp. 17-18). Now over 100 years old this rests close to the philosophy of both reflective practice and Continuous Improvement (CI):

*I KEEP six honest serving-men
(They taught me all I knew)
Their names are What and Why and When
And How and Where and Who.*

This forms part of a longer Rudyard Kipling's poem *The Elephant's Child* in *Just So Stories* (1902) and the ethos of the meaning sits firmly within many areas including the approach to reflective practice and CI; it's about asking the right questions to capture the key elements of an experience or story and, for example, is used to support trainee journalists in gathering key information (Jasper, 2003). A further reason to note this simple message is that CI does not have to be difficult; neither the carrying out of CI or the implementation of CI programs, it is all about method and application of suitable systems (Flood, 1994).

When related to my career, the CI path has taken many turns and showed itself in many guises. Back in 1990 I progressed from a technical engineering apprentice to qualified engineer and joined Imperial Chemical Industries (ICI). It was here that I was exposed to formal Process Improvement (PI) techniques, a branch of CI activities that were essential to best practise improvements within the process industries (Dean and Bowen, 1994).

I became involved with significant projects during my six years with ICI and although I wasn't consciously aware that I was using PI / CI techniques to improve systems and processes, in effect I was. This was driven by an on-going business need to constantly strive for more advanced and cost effective solutions to support customer requirements with best practice sharing and innovation becoming increasingly important (Levitt and March, 1988).

Key CI led initiatives included project management and commissioning of a new build chemical plant fulfilling the role of Team Leader, de-mothballing and up-rating a chemical plant that had been out of service for over 10 years and a second new build project utilising cutting edge technology to improve a chemical product manufactured at the site, resulting in a significant uplift in revenue and profit. I had used simple CI tools through these projects from brainstorming, fishbone diagrams to developing robust quality and selection procedures, typically now known as Gauge R and R [repeatability and reproducibility] processes as part of the lean toolkit.

My career progressed to Senior Electrical Engineer within the Paper Industry in 1996 working for Georgia-Pacific, formerly known as Fort James, a world-wide paper business. As I progressed through the four years I worked for the company I took on responsibility for running short time-scale outage projects, typically up to a duration of twelve hours following a pre-determined cycle of planned maintenance schedules. These outages involved up to 100 contractors and internal labour resource of up to

forty-five engineering colleagues to complete paper machine, recycled paper de-inking and effluent plant overhauls. This was on a cycle of approximately once per month per operational area equating to an average of one shutdown per week.

The outages were very much of a control and command approach driven by the perceived need for total compliance to requests for work to be completed by contractors so as to minimise any risk of mistakes being made. There was very little involvement with the contract teams specifically; they arrived on site, were given their safety brief and then expected to carry out tasks following an A to B, B to C, and C to D approach with no latitude for creativity. This was not an acceptable position from my perspective and formed the basis of my historic reflections around an improvement opportunity.

They were completed successfully; however as I worked on these outage projects I became aware that there must be better ways to plan and communicate with large-scale numbers such as this and that any improvement in engagement and understanding expectations with the teams would bring greater effectiveness for the outages and build stronger relationships. Benner and Tushman (2002) explained that process management improvements across an organisation are attained through incremental improvements guided by feedback given directly following implementation to drive the continual improvement cycle. This was the philosophy under which I had targeted to operate.

4.2. BACKGROUND TO THE INITIAL REFLECTIVE OPPORTUNITY

The opportunity to test out my thoughts became a reality with consideration of a major project and it was here that I consciously implemented CI techniques in an area of electrical engineering for the first time. My previous technical knowledge of electrical systems would be challenged through this project, as would my people skills including the ability to manage large multi-disciplinary, technical teams and operational stakeholders. The population would include internal and external labour resource; hence the need to develop credible ways to communicate with both groups was necessary to support the project.

Figure 28 provides an overview of the project; on the left-hand side of the diagram the key elements are identified, with the right-hand side depicting the circular pattern of task, culture and reflection associated with the development of the project through the reflective cycle.

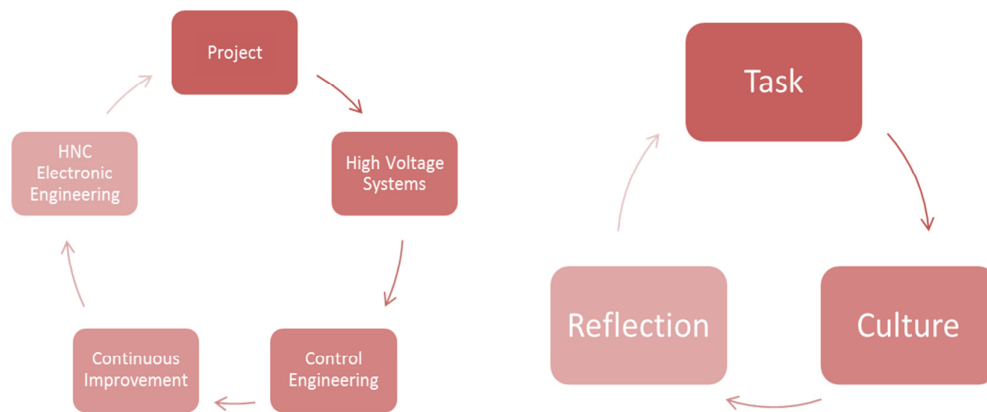


Figure 28 - Electrical infrastructure, project overview and reflection (Author's Own, 2015).

In general, many differences can be found between personal knowledge of working professionals and the public knowledge base of their profession (Eraut, 1994). Although many areas of professional knowledge are dependent on some understanding of relevant codified knowledge typically in books and journals, professional knowledge is constructed through experience and its nature depends upon the cumulative acquisition, selection and interpretation of that experience.

The project scope was to transform the out-dated electrical systems of the site into a modern system affording a minimum forward looking time-scale of ten years before the same level of intrusion would be necessary. The project detail, electrical infrastructure replacement and maintenance, had previously been looked at by other senior engineers, however it had never reached a credible project plan position. The opportunity to do more in less time through increased engagement with colleagues and teams had not been looked at to the depth required. Often in my previous experience and that of peer level colleagues in other business sectors at the time, efficiency of resources; both labour and materials had taken third and fourth place of importance behind compliance and safety for engineering projects. My view at the time, and to this present day, is why they could not be of similar importance in how they were treated and executed.

The Paper Mill was a large-scale, capital and energy intensive operation both in process equipment and utility infrastructure with an on-going requirement to produce more products with the same operational equipment. This was an enviable position to be in for the business aspect of the operation but not for intrusive improvements to be carried out to the electrical infrastructure as these required significant periods of downtime to complete. Driven by this mind-set outstanding work to the electrical

infrastructure had only been completed to maintain statutory compliance. This had been fine for a number of years; however the system was used intensively to provide high capacity electrical power to paper machine equipment and required capital expenditure improvements in addition to significant revenue repairs to improve the electrical system integrity and availability.

The challenge I had was to come up with a way to secure the required opportunity to complete a large-scale improvement and maintenance program to transform the out-dated electrical infrastructure systems into a credible resilient system for the foreseeable future. Failing to deliver this would result in the period of minimal maintenance continuing until sections of the system inevitably failed in service jeopardising the sites ability to meet customer demand.

4.3. REFLECTIVE PRACTICE ONE – THEORY

I proposed a program of works over the Millennium period that would effectively bring the site; with the equivalent electrical infrastructure of a small town, to a 100% compliance position, including the replacement and / or improvement of significant sections within twenty one hours of outage time with a further two days of semi-intrusive preparation time prior to the work taking place.

Concerns were initially raised that the time-scales were far too tight; that the program was not therefore credible and destined to fail by returning the site to an operational position late. This would affect the professional standing of a major UK site of the business to supply its customer base in the '*Fast Moving Consumer Goods*' (FMCG) business. This positioning was further exacerbated as the business had traditionally been risk-adverse due to the '*cut-throat*' manner in which the paper industry was known to operate and the ability of customers to move to alternative providers with relative ease due to product similarities across various suppliers.

I ascertained from this that failure to deliver the project on time; in light of the reservations expressed, could adversely affect my professional standing within the business. Furthermore the engineering challenge I was proposing would not be allowed to commence unless senior managers of the business were suitably convinced it could be completed to time and budget, with safe delivery as the number one priority.

I commenced preparation for the project some five months prior to the Millennium utilising simple Continuous Improvement tools; team meetings, brain storming

sessions, Ishikawa (fish bone diagrams), with Plan Do Check Act (PDCA) programs running simultaneously to test project delivery criteria. Failure Mode and Effects Analysis (FMEA) schemes were instigated to ensure that no undue risks or cross-over of tasks would affect the outcome of the project. Planned outcomes were communicated to several levels of management concurrently to deliver project plan proposals modified in context as appropriate for the differing audiences (see Appendix 3 for copies of supporting documentation).

In a survey of 750 project managers, the Gantt chart was the fourth most used tools out of 70 tools and techniques associated with project management (Besner and Hobbs, 2008). Whilst not being a ground-breaking project management tool by the late 1990's I utilised them for this project as they offered a robust, visual management tool for managing project milestones; they supported clarity in the development of the resource allocation and task planning phases and allowed me to challenge pre-existing process and time-scales for specific tasks. This included any areas identified as a potential clash of resource or equipment that would adversely affect the flow of work.

Challenges were made to all existing practices, including those thought previously to be the best and often only route possible. New ideas were explored again driven from brainstorming / Ishikawa sessions to see what could be improved. Formal reviews of safety expectations and standards resulted in a secondary project to improve the application of engineering safety standards and specifications for this and subsequent projects, an unexpected outcome, detailed later.

External preferred contractors, who were expert in their respective fields of electrical engineering, rather than being treated as a '*purchased resource*' to be used at will, were fully engaged from the project concept and their ideas for improvements were embedded into the initial planning stages of the project through brainstorming and Ishikawa sessions.

This led to a plan that was not only credible from a purist engineering perspective; it also took into account site knowledge, experience and external contractor best practice procedures concurrently. This led to an inclusive approach for all the stakeholders and I put the final project proposal plan together using Microsoft Project™, spread sheets, graphical representations and formal communications that would nowadays be the equivalent of a DePict Project planning model.

The plan was subsequently put to the businesses senior management team for review. Following robust sensitivity analysis and contingency assessments; including regression plans, it was signed off and I began the final preparations for the work including the provision of all necessary resources and capital purchases to complete the planned tasks.

4.4. REFLECTIVE PRACTICE ONE – PRACTICE

The outcome of this CI driven approach was that the planned works were all completed on time and to budget with no safety incidents recorded. I held formal reviews with site management teams three times per day to review progress against targets; communication with specialised contractors was formally recorded so as to ensure clear understanding pre-project and objectivity in post-project review meetings.

I used a simple red, amber and green (RAG) form of graphical information to indicate progress and this was displayed in numerous areas of the site where engineering teams were working so they could see first-hand how the project status was progressing. This was a form of visual management that I had not consciously recognised at the time and implemented simply because it seemed appropriate. At the mid and end points of each of the three days I reviewed the position the project was in to check resource allocation vs. actual usage and progress against plan to track the accuracy of the resource planning aspects, this facilitated a fast response to problematic areas identified.

Meetings prior to the project commencement had identified a weakness in site application of safety processes. This unforeseen, potential blocker to the technical aspects of the project's progression was the varying understanding of how to apply and work to British Standard (BS) for electrical engineering safety practices. It was evident that different contractors who specialised in similar, yet different areas of electrical engineering services had differing perspectives on how standards and safety rules should be applied. This was a major concern with the potential to impinge on the agreed time-scales of the project plan and led me reflect on what the best course of action to take would be.

The resultant actions required me to make a number of technical and managerial decisions as how to harmonise the situation appropriately and move forward. This issue culminated in the researcher of this thesis writing a suite of formal Codes of Practice to bring the site to an exemplar level of electrical engineering standards which

were subsequently implemented across all the UK manufacturing sites of the business through 2001-2002. These were shared with the specialist contractors at site and agreed practices and expectations were implemented.

Whilst this was an unexpected, positive step forward from technical standards and managerial [relationship] perspectives I had not foreseen the need to evaluate the potential for it to be an issue; I took for granted the notion that all the specialist contractors would be explicit in their approach rather than having elements of tacit, experienced based knowledge in their understanding and application of said standards. This explicit / tacit knowledge differentiation was an area I became particularly interested in and has been a theme of my professional career development since that time.

The project progressed to plan and following successful completion I wrote a summary document for internal use at the time that was shared with senior engineering and operational managers on and off site. I was presented with a formal commendation from the senior management team of the site for the project which was in part due to the fact I had executed the project in a safe, effective manner resulting in 100% of all planned works being completed, on time and to budget. This was particularly gratifying as the full scope of the project was envisaged to be so difficult to achieve at the onset by a number of key stakeholders; however by employing a CI approach to the project identified issues were dealt with effectively allowing for successful completion.

4.5. REFLECTIVE PRACTICE ONE – REFLECTION

Boud et al. (1994) published work discussing how to turn experience into learning. They wrestled with the terminology of how to describe the reflective elements of learning in their introduction before arriving at a description of reflection indicating that in the context of learning it: *“Is a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations”* (Boud et al. 1994, p. 19).

Reflection is required at all aspects of an experience; at the beginning in anticipation of the experience, throughout the experience to deal with the vast array of inputs and feelings that may be generated and post experience as the processes of writing about the experience and consolidation occur (Boud et al., 1994). At the planning stages the pre-project experience of undertaking the task were clearly evident to me; I had many quiet moments to myself to reflect on the enormity of what I had planned to take on.

I reflected that I had pushed the need for the work to be completed; effectively shifting the responsibility from the organisation to drive the need onto myself as the project instigator, leader and facilitator. Whilst this type of project work was a required expectation of my role's responsibilities I could have, on reflection, naively taken on far too much driven by my historical '*can do*' attitude to get things done and my driven approach to project completion.

Understanding where reflection starts and stops if indeed it ever should Moon (2004, p. 98) comments that: "*logically, there is no end point of reflection...it can go on and on examining issues in a wider context*". Schön (1983); Kolb (1984) support this pointing out that reflection is a continuing cycle as we develop our reflective skills and review historic experiences from a differing perspective. Reflection-in-action (Schön, 1983; 1987) supports our on-going ability to make sense of experiences as they unfold and affect their as yet unknown outcomes; whilst reflection-on-action allows for re-evaluation of past events, both recent and historic to gain further meaning from them to encourage development of our future decision making capability.

To make practical use of concepts and ideas, other than those embedded in well-established professional traditions, requires intellectual effort and an encouraging work-context (Eraut, 1994). At the time of the initial planning phases I went through a period of slight self-doubt as I realised what I had taken on; however this was abated by looking at the positives taking place around me and the support I was gaining as the project plan came together and neared sign-off. Powerful feelings can enhance the learning process, however in some cases negativity in ones feelings can form major barriers to learning by distorting perceptions, creating false interpretations and undermining the will to persist (Boud et al., 1994).

Walter and Marks (1981) characterise experiential learning as when participants are fully involved, learning material is relevant, where individuals develop a sense of responsibility for their own learning and when learning is flexible and responsive to participant needs. I have always wanted to learn and many personal and professional interactions with friends and work colleagues have led to conversations whereby they lack the understanding as to why I want to learn and experience more. My decision to undertake a PhD is an archetypal example of this as they generally do not see the need for it [PhD] and view it as a huge, unnecessary work related task. For me it is about developing as a person through academic learning and professional knowledge management (explicit), coupled with experiential learning opportunities (tacit) enhancing my capabilities and understanding (Walter and Marks, 1981).

Boud et al. (1994, p. 11) raise three points in relation to learning and reflection. Firstly that: "*Only learners themselves can learn and only they can reflect on their own experiences*". Being taught can improve the desire of learners to learn, however teachers only have access to individuals' thoughts and feelings dependant on what they choose to reveal about themselves. Secondly, the learner dictates the outcome of their learning experience with reflection and learning essentially private in nature and under the control of the learner (Moon, 2004). Thirdly, reflection needs to be pursued with intent; formed of purposive activity towards an identified goal, rather than meanderings or day-dreaming and thirdly the reflective process is a complex one in which both feelings and cognition are closely interrelated and interactive.

Reflection is not exclusively an individual activity and groups engage in reflection when they discuss recent events and issues, through comparing notes, having informal discussions and completing post-mortems of events and experiences, metaphorically speaking (Boud et al., 1994). Through reflection the way I approached the project taught me a great deal about myself and the way individuals and teams can respond if they are truly made to feel part of something rather than simply be an element of discrete resource to a process or project bigger than they are as an individual. This reflective output felt as though it outweighed the high technical content the project had been delivered against and was not what I expected at commencement of the project.

In Chapter 1 of *Educating the Reflective Practitioner*, Schön (1987) opens with an interesting dilemma debating the prevailing rigour associated with professional knowledge, based upon technical rationality and the awareness of what he calls the swampy zones of practice. I found that when I was planning the project I moved from a technically driven background based upon black and white, logical engineering perspectives to one of a project leader wanting to understand the implicit needs of the team to support our mutual success. I found that clarity was hard to come by initially as not all individuals follow a logical approach in the same manner as a machine or process and conversations felt drawn out in my view, unnecessarily at times.

The learning for me here was captured by Eraut (1994) who commented that experience does not develop into appropriate learning if the flow of experience is too fast. In the first few team sessions I failed to see the true value of prolonged discussion as the days were blurring into each other due to the high intensity of work I was completing at the time. Reflection and learning are essentially private and under the control of the learner (Moon, 1999) and the nature of the objective; to improve my team management skills was a powerful influencer on my desire to learn, possibly too

quickly. When I did sit back and reflect on what was occurring the potential downside of creating drawn out debate was overwhelmingly outweighed by the advantage of creating robust, effective and mutually acceptable ways of working together more effectively through engagement, inclusion and discussion.

Schön (1987, p. 4) uses the example of a civil engineer planning to build a road where all the technical considerations are understood, however the decision as to what type of road to build cannot be defined by the use of sophisticated decision theory. There are numerous factors that can affect the decision such as topographical, political, financial, economic and environmental factors must be taken into consideration. Notwithstanding the topographical aspect, the project I undertook had elements of the other areas firmly embedded within the decision making processes that ensued.

Utilising the team based inclusive approach was a cultural change for the site and contractor based labour. Through post project reviews relating to previous projects, contract labour support had been content to fulfil passive roles allowing projects requiring their involvement to run their course without interjection that could have potentially improved outcomes on numerous occasions. The old adage of '*managers manage and workers work*' was, for the site engineering team, something that had been the way it was. This mind-set was however, at the start of a cultural change journey.

Through the two-way colleague engagement opportunities of the project; gaining trust by delivering on agreed ideas and sharing successes with the teams, this historic manager / worker ethos began to erode. The internal labour / external contractor relationship strengthened as we moved forward and the site went from strength to strength with future engineering projects following a similar use of CI tools and techniques to the ones I had implemented for this large-scale project.

Boud et al. (1994) discuss that reflection can be done well or badly, successfully or unsuccessfully. The self-awareness element of Emotional Intelligence (EI) is likely to be a factor in this and the literature review supported the viewpoint that EI is a critical factor in effective leadership, playing a significant role in a manager's performance, especially when delegation of work and power are concerned (Dulewicz and Higgs, 2003; Bahdor et al., 2011). Whilst not consciously aware at the time, my level of self-awareness was a contributory element in the success of the project.

At numerous times throughout the planning and implementation stages of the project I reflected on the way forward developing a conscious understanding that on occasions I would reflect 'off-line' when adequate time was available to reflect without affecting the projects progression. Other situations required an almost subliminal, competency driven immediacy to decision making (Eraut, 1994) with subsequent reflection taking place with an element of '*what went well and what didn't*'. This process developed as my career progressed; however on further reflection this project was the one where I became consciously aware of my approach and the high success rate in decision making that it afforded me.

Boud et al. (1994, p. 7) suggest that reflection is an active process of exploration and discovery often leading to very unexpected outcomes. The need to deliver a suite of Codes of Practice to improve the safe working practices of the site were an area I had not envisaged to be a requirement pre-project. The fact that specialist contractors felt they could discuss their concerns regarding consistency in the application of standards prior to the project taking place instilled a view that I have maintained since that time; engage with those you work with to build trust and they will deliver a better performance than previously seen. In this case an improved understanding and application of agreed safety standards supporting a major projects positive outcome.

Eraut (1994, p. 39) comments: "*that the learning of practical knowledge is little studied and little discussed. Indeed one probably acquires most of it without realising that one is learning at all*". When I now look back I was applying CI techniques because I knew it was right to do so. This was not necessarily in the full context of what they had to offer from a formal review of the available tools, as I did not understand them all at the time or their potential to help solve problems in a much broader sense.

4.6. SUMMARY

This project was the start point of my formal CI journey helping me to understand the value of engagement with and trust of colleagues; how to relate to senior managers expectations, including how to align these softer yet likely more critical elements of project success to the traditional task-orientated elements of project management. As I move to my second reflective opportunity of the thesis the learning's taken from this project aided delivery of the second one, with a realisation that there were significant cultural differences in the colleagues and their expectations in the work environment.

Individual and team behaviours became significant issues to manage compared to the technical considerations that I had been used to in my career. Whilst I was not aware at the time, my journey to understanding the importance of colleague engagement was at the formal start-point and the value of trust and integrity between colleagues and managers was something I became astutely aware of. Figure 29 illustrates the steps utilised to successfully complete the project. These form the initial foundations built upon to provide the CI implementation model defined in Chapter 7.

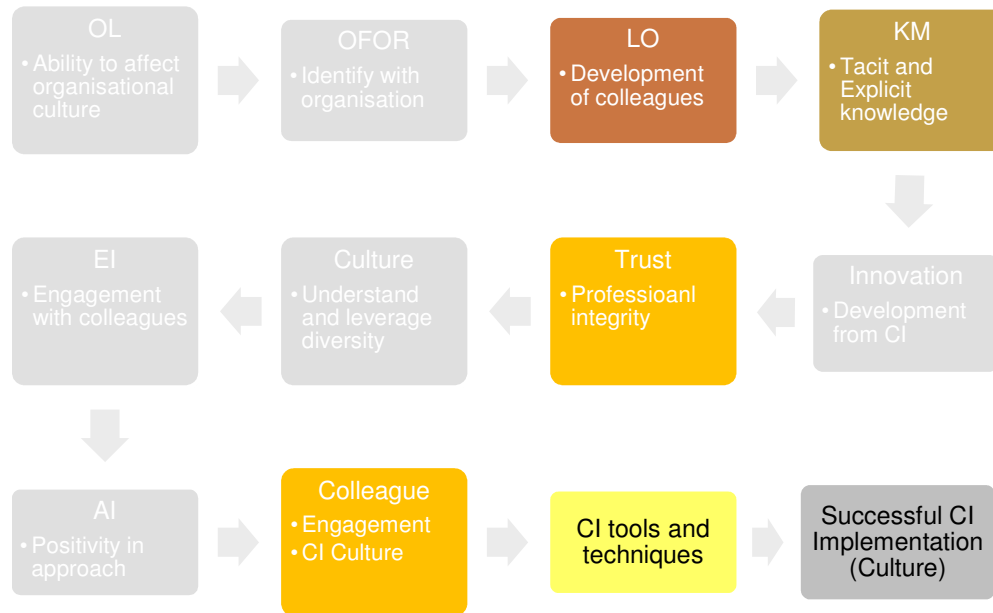


Figure 29 – CI implementation Initial Model, (Author's Own).

CHAPTER FIVE – REFLECTIVE PRACTICE JOURNEY #2

5.1. BACKGROUND TO REFLECTION #2

The diagram below (see Figure 30), illustrates the second reflective experience of the researcher which was a Lead Oxide Mill Installation project. The relevance to this project is that it provided the opportunity to develop my understanding of the task vs. culture elements of project management, with a shift from task towards a culture orientated approach. The area of Emotional Intelligence (EI) became a prominent element of my approach to colleague engagement through this project.

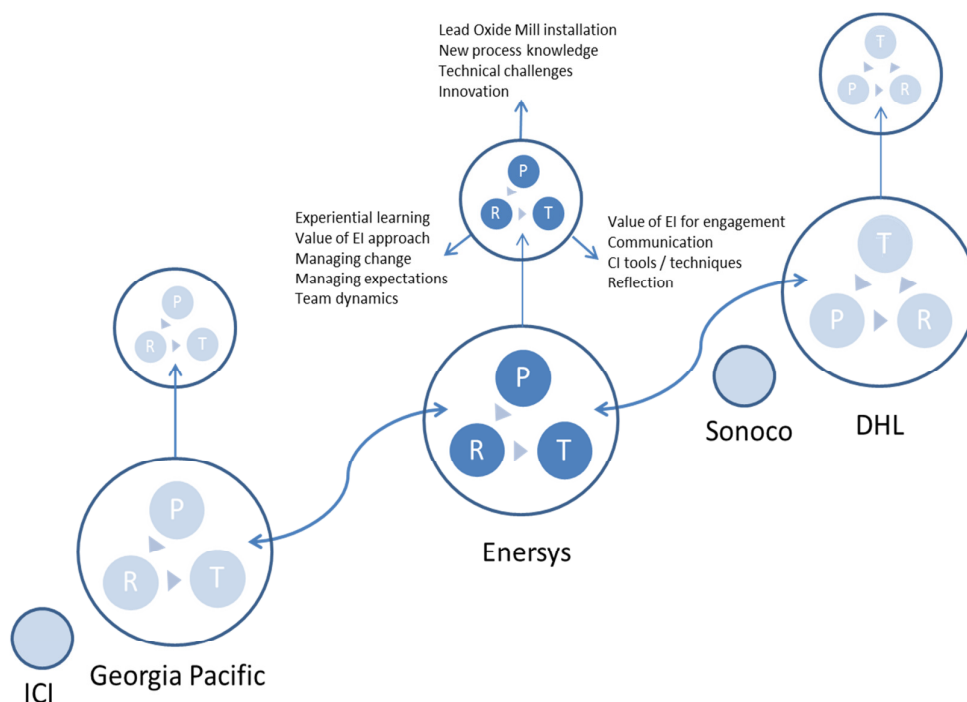


Figure 30 - Lead Oxide Mill installation, reflective practice project two (Author's Own, 2014).

The Chief Engineer I had worked for in the paper industry moved his career forward by taking a more senior position in a new company and some six months later we discussed the opportunity of me joining him at his new employer, a world-wide battery organisation named EnerSys. The basis of this was for me to help him drive through difficult but necessary changes through the engineering teams based on the softer skills of people management complementing the technical, hard skill-set of engineering expectations that I had worked with previously. This was a good fit for my changing perspective on the importance of colleague engagement and a more culture rather than task orientated approach.

The outcome was that I decided to work with him again and it was evident from the start that the people management aspects far outweighed the technical competence requirements of the role driving me to develop a new way of thinking. Soon after joining EnerSys I was presented with the opportunity to take over management of a major project; a Lead Oxide Mill installation of strategic importance (see Appendix 4 for supporting documentation). This project had stalled at the design / pre-installation stages and the senior management team of the business had lost confidence in the ability of this project to be delivered to time or to budget.

The period between completing the electrical infrastructure project and this opportunity was approximately seventeen months and during this period my interest, albeit from an inquisitive perspective, as to how I could take my learning's forward were evident in my mind. At this stage I had not formally read about self-awareness and reflection; however I had spent time with a work colleague in a senior HR role, Mr. Sid Forest, VP HR EnerSys, who conveyed the value of Emotional Intelligence (EI), citing Daniel Goleman as a recognised subject matter expert. He inferred the value EI could bring to people managers who were tuned in to a level of self-awareness, with the ability to reflect on situations and team dynamics, and I duly researched the literature that was readily available at the time.

I read a number of published works (Goleman, 1996; 1998; Langley, 2000), and became immersed in how this could help me develop my people management skills. The impact of cultural differences, cultural conflict and professional knowledge and competence were interesting topic areas for me due to my desire to pursue professional development and I read Baron and Walters (1994), Hofstede (1994) and Eraut (1994) as precursors to future work I would research for my Master's thesis in 2004. I had always felt I was open to suggestion; however the specifics of self-awareness, self-reflection and having the capacity to understand my own feelings and others in relation to work situations was not something I formally understood or indeed recognised. My lack of consideration in the initial team meetings relating to the electrical infrastructure project had revealed to me that I had work to do in developing my EI and self-awareness skill-set.

Figure 31 provides an overview of the project; on the left-hand side of the diagram the key elements are identified, with the right-hand-side depicting the circular pattern of culture, task and reflection associated with the development of the project through the reflective cycle. The subtle changes identified are that CI became a more important element for project success than control engineering, depicted by the anti-clockwise

change in position of CI in the left-hand-cycle. The second, more prominent change was that culture and task orientation exchanged positions in relative magnitude in the reflective cycle from the initial reflective project where task was of primary importance.

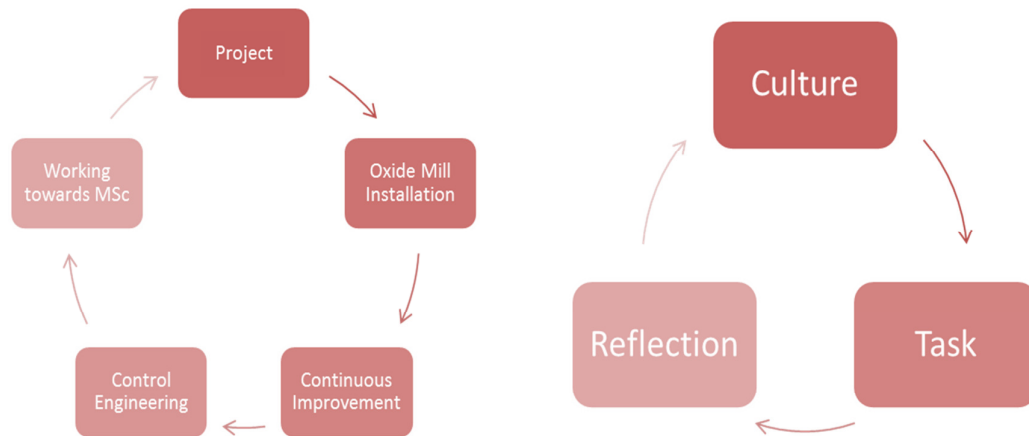


Figure 31 – Oxide Mill, project overview and reflection (Author's Own, 2015).

5.2. REFLECTIVE PRACTICE TWO – THEORY

Goleman (1998) had reasoned that EI, when related to performance excellence, had twice the impact in successful outcomes as that of technical and cognitive abilities. A study he completed reviewing senior and middle managers targeted for promotion resulted in significantly higher scores among senior managers for EI. Langley (2000) completed a further comparison between senior and middle managers resulting in considerably higher scores among senior managers in EI elements, strongly supporting EI as a measurement tool for promotion readiness.

Within the published literature trust was identified as a necessary condition for cooperative behaviour between individuals, groups and organisations (Jones and George, 1998; Hansen, 2002). I would often go for a walk around site and stop to talk to colleagues about the thoughts I had and tease out their opinions for a contrast / compare discussion where possible. I found this promoted a level of trust over time, particularly in light of the fact I had worked for the new Senior Manager previously and a number of engineering colleagues had been very wary of me on joining the business due to this; the perception being that I may not be trustworthy by having a confidence with him, rather than with them.

Capturing summary notes was something I have always done to drive objectivity and trust when discussions arise following informal conversations. I would make brief notes of the who, what and why so that I could reflect and go back should that be appropriate. This had worked well for me in previous situations allowing me to capture specific instances as they occurred before the essence of the circumstances lapsed, providing a level of credibility to the context of discussions or reviews undertaken thereafter.

Boud (2001, p. 14) provided an overview of journals stating: *"The role of journal writing ... is to give an account of what happened and to retrieve as fully as possible the rich texture of events as they unfolded. The emphasis is on conjuring up the situation afresh and capturing it in a form that enables it to be revisited with ease"*. I have taken notes at the time events occurred and then gone back to update and / or modify my previous understanding, including the ability to reach conclusions as to why certain circumstances occurred and in some circumstances changed or prevailed.

The main advantage of written communication is that they can be treated as a deliberative process (Eraut, 1994) allowing for review of earlier drafts that can be revised prior to sharing. Formal reports will be composed with care where perhaps verbal discussions may be looser in context and accuracy. The style and choice of words can significantly affect how a document is received by the ensuing audience; thus good written communication skills require both time and skill to improve and use.

The effectiveness of professionals is largely dependent on the knowledge and know-how they can bring to each individual case, problem or brief themselves (Eraut, 1994). Other means include the reporting of others' experiences, be that formally through literature or course notes, or informally through colleague discussions and social networks. A particular feature of most professional work is the need for confidence and credibility; the professional has to believe that he is doing right. The skill with any new learning here is to challenge the work on professional grounds [of new learning] be that technical or ethical; doing this well will support a position where colleagues do not 'return to type' once the immediate challenge is over (Eraut, 1994).

Boud et al. (1993) comment that experience is a meaningful encounter; it is an active engagement with the environment of which the learner plays an important part. Experience is sometimes referred to as if it were singular, unlimited by time or space however much experience is multifaceted, multi-layered and so inextricably connected to other experiences that it is impossible to locate temporarily or spatially. It almost

defies analysis as this would inevitably alter the experience and the learning which flows from it. For learning to take place the experience does not have to be recent (Boud et al., 1993). Learning occurs over time and it can take many years for the meaning to become apparent. The experience may not change, however the learning from it can grow, the meaning can be transformed and the effects can be altered.

Eraut (1994) makes two claims relating to new learnings; firstly that a significant proportion of learning associated with any change in practice takes place in the context of use; and secondly, partly as a consequence of the first, there is little immediate transfer of knowledge from one context to another without considerable further learning taking place. Eraut (1994) states that theoretical knowledge, in the researcher's case Lead Oxide Mill chemical processes, cannot usually be applied '*off-the-shelf*' as their implications have to be worked out and thought through. This is mainly determined by individual professionals and their work-context; however how it is introduced and linked to the individuals concerned is also relevant.

Further to this, the implicit nature of experienced '*know-how*' which professionals use cannot be derived from explicit codified knowledge [theory] alone and the question persists as to how much professional know-how is implicit, and from a knowledge management perspective how much is capable of being described and explained. Schön (1991) perspective on knowledge is that it should be interpreted with the broadest possible meaning. It should not be confined to codified, propositional knowledge and it should include personal, tacit, process knowledge and know-how. In contrast to Schön, research into professional practice is beginning to explore the scope for making practical knowledge more explicit; thereby making it more capable of being disseminated, critiqued, codified and developed (Eraut, 1994; Roffey-Barentsen and Malthouse, 2013).

Boud (2001) suggested that it is useful to consider three occasions of reflection; in anticipation of events, during them, and afterwards. No one can predict the future; however focusing on what you can affect will support a positive outcome. Moon (1999) offers a perspective relating to '*sleeping on a problem*' and the merits this may have. Solutions to difficult problems or creative ideas may appear suggesting that reflection might not need to be a process we are conscious of.

By example much of the material in professional practice appears to be tacit and people act effectively without the ability to succinctly verbalise the mental process that led to their action. We are therefore sometimes more conscious of the outcome of

reflection than we are of the process itself. Boud et al. (1985) devised a model (see Figure 32), depicting the development in reflection through the learning process.

The model refers to the starting point and objects of reflection; the totality of experiences of learners, the behaviour in which they have engaged the ideas the learners are aware of, and the feelings which they experience. It designates the outcomes of reflection; which may be a personal synthesis, integration and appropriation of knowledge, the validation of personal knowledge, a new affective state or a driver to the decision to engage in some further activity. It also points to the various intellectual and affective processes involved in reflection, facilitated by an individual or in some cases assistance from others.

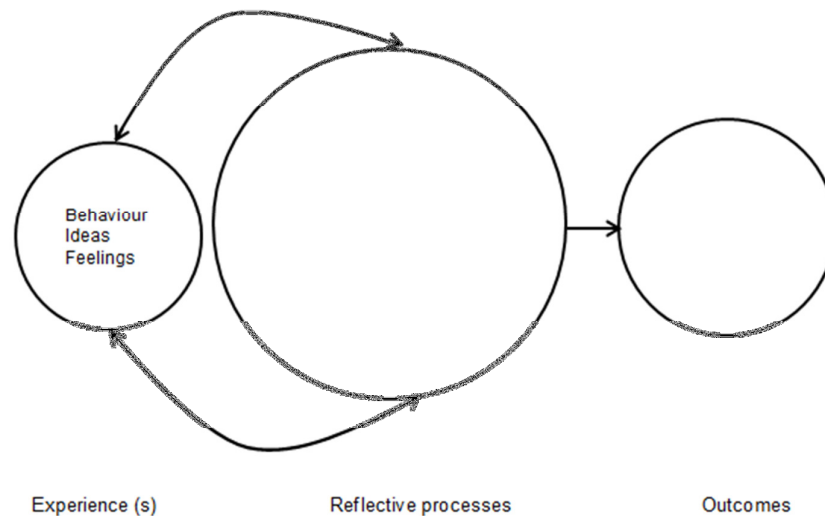


Figure 32 - A model of reflection in the learning process (Boud et al., 1985).

The characteristics and aspirations of the learner are the most important factors in the learning process (Boud et al., 1985) and the response of the learner to a new experience is significantly affected by past experiences which contribute to how the learner perceives the world. The way one reacts to the world in a given situation will not be the same as another, with this becoming more obvious when learners from diverse backgrounds work together.

The model is developed to a second stage through a review of the reflective processes from the point of the learner and puts special emphasis on the relationship of the reflective process to the learning experience and on what learners are capable of doing with or without the assistance of others to enhance reflection. Boud et al. (1985) believe that strengthening the link between the learning experience and the reflective activity will enhance the learning. If we are exposed to too many successive

experiences without the time to reflect then the opportunity to develop greater meaning can be missed. Debriefing time may accommodate this requirement and whilst it can be designed into formal learning opportunities such as short courses or seminars it is not readily available or potentially thought about by the learner in the midst of experiences.

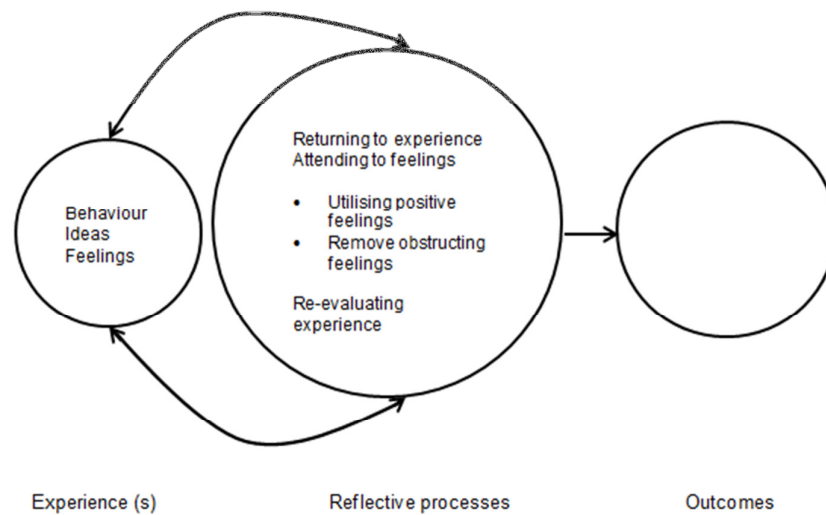


Figure 33 - Components of Reflection (Boud et al., 1985).

Figure 33 lists three elements Boud et al. (1985) feel are important to the reflective process. Firstly, returning to the experience to recollect the salient points, the replaying of the initial experience in the mind of the learner or the recounting to others of the features involved within the experience. Secondly, attending to feelings has two facets; utilising positive feelings and removing obstructive feelings. Utilising positive feelings involves the focusing on positive feelings about the learning and the experience which is subject to reflection. Removing obstructive feelings is a necessary precursor to rational consideration of events; this can take numerous forms through expressing one's feelings when recounting an experience or event to others. It involves whatever is necessary to remove the obstruction; for example the use of humour to lighten the mood, laughing through a potentially embarrassing incident (Boud et al., 1985) or through some other form of catharsis.

The third element is the re-evaluating experience, which is the most important, however often not completed cycle of the process if the preceding elements are omitted. It involves re-examining experience in light of the learner's intent, associating new knowledge with that already acquired, integrating this new knowledge into the learner's conceptual framework.

New associations are facilitated by positive attitudes and a responsive state as the new input linked to our existing knowledge can lay down challenges, both intellectually and affectively. One has to be open to the possibility that our old attitudes are no longer consistent with new ideas and feelings, that re-assessment is necessary and, in the cognitive area; our earlier knowledge needs to be modified in order to accommodate new ideas. To re-enforce the importance of understanding this element Boud et al. (1985) discuss that obvious well-worn paths of association can lead to missing other potentially more fruitful associations leading to new concepts. They state that: *“it is well known that many creative leaps in the sciences have occurred through previously unrecognised associations, but this process is also relevant in the more modest learning tasks which face all of us”* (Boud et al., 1985, p. 31).

The final development of the model suggest that the elements of the reflection process are independent of each other and move linearly from experience through reflection to outcomes, however this is often not the case. Figure 34 incorporates the complete model whereby desired outcomes are detailed; the process involves continual cycling back and forth, with compression and omission of stages at times following due thought as any omission can adversely affect the depth and significance of reflective outcomes.

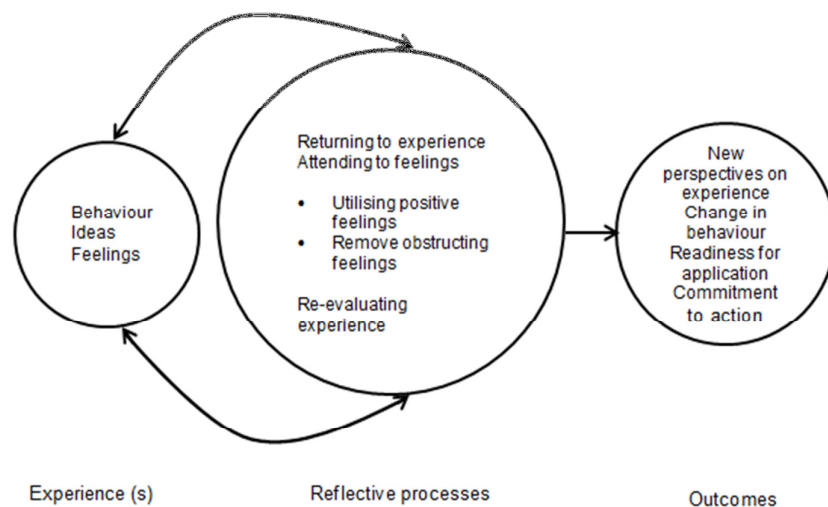


Figure 34 - The Reflection process in context (Boud et al., 1985).

Reflection consists of those processes in which learners engage to recapture, notice and re-evaluate their experience, to work with their experience and turn it into learning (Boud et al., 1985). Reflection is not just an individual activity; engaging with another person or group can change the meanings we draw from experience. When a group participates in a common event each individual will experience it from their perspective

and individual interpretation. The recounting of similarities and differences can enable participants to reflect on how their experience has been influenced by their unique history and perceptions, highlighting the importance of not assuming that we all experience events in the same way.

I thought back to the success of the major project in the paper mill and how I had employed CI techniques through team participation to positively affect the execution of that project; this being achieved against an initial level of scepticism and doubt at numerous levels of employees and managers. The Lead Oxide Mill project would be different for two main reasons; firstly the production engineers who were in my peer group for reporting were embedded in a culture that saw significant change as an issue rather than a progressive way to move forward. This concerned me as they had openly discussed that the change in technology from a well-known and trusted supplier of Lead Oxide Mill equipment for over thirty years was not chosen to provide the new requirement.

Secondly, the situation was amplified as a well-respected production engineer of the site had been removed from the project that I was about to take over. He had been deemed by senior management to be failing and thus jeopardising the projects delivery. I envisaged this would cause an undercurrent of issues for me as I was effectively the new outsider; given responsibility for one of the largest projects on site for a number of years, whilst supplanting one of their long-standing colleagues.

The Pygmalion effect, often referred to as a '*self-fulfilling prophecy*' (Preskill and Catsambas. 2006), reflects the idea that what we expect to happen will happen with regards to the expectations we have on others. This can work two-ways and I was very aware that before some of the site team knew of my capabilities they had pre-judged the impending failure of the project I was now managing. I reflected at the time as to how I would gain the desired level of participation from parties that may be unhelpful whenever possible.

It was evident from the lack of engagement that the incumbent production engineers would not be forthcoming with support and I felt that many were hoping to see me fail. Misunderstandings, in this case pre-determined, often ensue from the strong tendency endemic in all of us to interpret events in accordance with prior expectations (Eraut, 1994). Worse still is the potential for informal second-hand reports and rumours to affect how the first direct encounter with another person is interpreted. In effect we tend to see what we expect to see.

To counteract this I employed a level of inclusivity with all the project stakeholders at the first opportunity including the need to discuss a significant change to the proposed oxide mill layout. The previously completed design had the new oxide mill and associated equipment in a North to South orientation in the planned build layout; however from detailed review I could see this was not a viable option for efficient layout, cost or required break-ins to existing process equipment.

A credible project plan was required and I developed this working back from the already in jeopardy project completion date with all stakeholder parties. Whilst I was very aware of this major concern I purposely played the significance down in order to focus on the positives. These being that the business had confidence in the operation to put this type of investment into the site; that it would lead to an improved cost base for the site as lead oxide was a key raw material of battery production, and that we had the potential to export excess production to other sites in the business to increase site revenue and the wider business profitability supporting future job security.

Appreciative Inquiry (AI) was not an area I was familiar with at the time however the ethos of reviewing without dwelling on past successes; the electrical infrastructure project, was a positive way to look at how to make the oxide mill project a success. Preskill and Catsambas (2006) capture this suggesting the AI helps organisations to influence how members think and act, envisioning a future based upon past successes and motivating them to strive for more peak experiences because they know what is possible. The glass half full vs. half empty scenario is evident in the AI approach. I could have looked at all the negatives of the project; however that would have gained nothing apart from demoralising a team that was already in a dispirited state.

Learning to work in teams and in organisations is another area where professional education is found to be lacking. Undeniably positive qualities such as getting on with people and fulfilling one's role do not carry the significance they espouse. Developing knowledge of people is likely to be enhanced by seeing a person in different contexts and situations, through consultation with others who have witnessed particular behaviours in context and through their own personal assumptions (Eraut, 1994).

Walter and Marks (1981) recognised that whilst team members can have a disruptive influence on team dynamics and learnings, security and support can result from membership of a group. Groups enable responsibilities for learning to be shared and provide a framework for satisfying social needs. This can lead to mutual commitment and support improving the motivational status of group members.

Again the positive elements of the project were pushed forward and one ally I had, a technical manager who I had worked closely with and who trusted me, supported my attempts to move the project forward by emphasising the positive technical elements whilst dispelling the negatives to group members at every opportunity. The use of positive images to counteract negative opinions is documented within literature (Cooperrider et al., 2003, pp. 11-12) pointing out that: "*when there is a vision or a bright image of the future the people flourish*".

It was agreed that I would undertake a company sponsored greenbelt qualification in Lean Methodologies to support three requirements; the development of my academic understanding of CI, facilitate the opportunity to combine previous CI experiences with new academic learning whilst providing me the opportunity to use formal techniques learned to support the development of the site teams engaged with the project.

Boud (2001) commented about how strongly do we hold onto our intents and will these blind us to other possibilities of which we are as yet unaware. The emphasis from Boud here is on how we make the most of future events and what might be relevant to take into account in preparing ourselves for said future events. Eraut (1994) explains that we may need prior knowledge and understanding of people in order to decide how to approach them for planning a communication; how to allocate tasks to them (delegation); how to interpret their responses; how to motivate them and a crucial element in terms of the oxide mill project whether or not to seek advice from them.

Eraut (1994) suggests the need for good communication skills is often treated as a set of basic skills or competencies expected to be mastered at sub-degree level and thus does not receive the academic standing it deserves. Communication involves skills that need to be improved through practice with feedback and have to be tuned into person and context for them to be meaningful. The good communicator draws on '*knowledge of people*' and includes the ability to '*read situations*'. At all times I employed an inclusive team driven approach; in hindsight and understanding more about group dynamics and hidden agendas, this helped to gain the trust of opposing parties to work together and agree the way forward for the benefit of the project.

Literature relating to processes such as problem-solving and decision-making tends to suggest a rational linear model in which a prior information gathering stage is succeeded by a deductive logical argument until a solution / decision is reached (Eraut, 1994). In practice this rarely occurs and the need for continuing interaction between information input and potentially changing outcomes is evident. Inventive approaches

to problem solving, including the use of insight to drive outcomes necessitates new ideas being generated, worked through and developed to successful conclusions. This level of deliberation is not an easily attained commodity and many find it difficult to cope with, particularly when working in a team. The need for analysing several different perspectives is also recognised which is a strong argument for the value of a positive teamwork approach in difficult situations.

The need to display a balance between professional (expertise) and practitioner (practice) (Schön, 2003, p. 300) was evident as the expectation placed upon me was to provide practised understanding in a field that was not my primary area of expertise. I worked in a collaborative way to bring in the experiences and knowledge of others, challenge these acumens, initially with subject matter experts and subsequently my own understanding of first principles where appropriate. This supported my ability to provide credible outputs without displaying a lack of knowledge, confidence or understanding in my own abilities.

5.3. REFLECTIVE PRACTICE TWO – PRACTICE

Although I had many years experience working in process industries my knowledge of Lead Oxide Mill processes and systems was very limited and I soon became aware that a passive approach would not work to facilitate successful management of this project. The chemical process involved an exothermic reaction [liberating heat] to make the product; hence I was very aware that any process control failings on my part due to lack of understanding could have significant consequences, from safety, environmental and business costs perspectives.

The particular type of equipment that had been purchased was built to an exacting standard however it had not made the specification of product required at acceptable throughput rates in any pre-install trials and this was seen to be a research and development (R&D) led requirement to be realised through the commissioning and production proving stages.

I embarked on a process to improve throughput by reviewing all the input and output variables of the process with chemists and technical managers; representatives from the Original Equipment Manufacturer (OEM), plant operators and production engineers on site. This required a change to the original design specification and overall project scope including the need to formerly review the as yet unknown '*new / optimum*' running conditions to increase production capacity of the plant. This aspect of the

project required buy-in from all including sharing new knowledge as it became known with all stakeholder parties a necessary condition for cooperative behaviour between individuals, groups and organisations (Jones and George, 1998).

Knights (1985), cited in Boud et al. (1985, p. 88) comments that in their experience very few people, however highly qualified academically, have confidence in their capacity to think due to the fear of being: '*knocked back or laughed at*' as this is widespread. Moon (1999) perspective is that this inhibits participation in group discussion and discourages private reflection. Moon (1999, p. 169) elaborates suggesting that an emotionally supportive environment will have at least the following qualities:

- It will be a good learning environment socially for that individual.
- It will be an environment in which learners feel safe to take risks in their cognitive explorations.
- It will be environment in which there is understanding of the emotional concomitants of reflection - and one in which these can be supported.
- It will contain and help those who react negatively to counselling perhaps because initially, reflection is an alien activity for them and they have difficulties with the task.

During my review of the Functional Design Specification (FDS) I had raised concerns with the OEM regarding the electrical control system which resulted in the requirement to travel to their manufacturing facility in Verona, Italy to discuss with their senior design team. This proved to be a challenging time as I had basically brought into question a key control process within their system that they had utilised on previous projects for other clients without identifying any issues. Avoiding conflict through self-awareness and empathy (EI), working in a non-threatening collaborative team based manner and displaying professional competence formed the basis for my approach to this difficult challenge.

The published works I had read relating EI and the minimal opportunity I had to improve them through practical '*real-life*' use were tested through this time and over a three day period of technical process review and subsequent cooperative discussions I managed to gain agreement with their design team to make the necessary changes without damaging the relationship between the two organisations, a central requirement for both parties. The project was installed and commissioned in line with

the agreed plans over an eight week period; however the aforementioned concerns relating to reduced throughput at the required specification were evident when the plant was running under normal production conditions post commissioning.

A CI process known as Design of Experiments (DoE) was employed to monitor the impact of significant and non-significant process changes. Following numerous trials, reviews with the OEM, brainstorming sessions, simulations, and the use of a software system known as Mini-Tab™ to review data, a modification was agreed. This would add an additional cooling system with a pre-determined water flow to the main process plant which had never been done previously. This would allow the exothermic reaction of the oxide mill process to be controlled in a more resilient manner, to tighter control parameters, affording improvements to the process flow and repeatability of the chemical process taking place without compromising safety. This was a major success in the discussion processes I utilised; inclusivity of all stakeholders and challenging all known pre-determined solutions to make all parties think '*outside the box*' resulting in the desired outcome.

The result included a CI driven opportunity for the OEM (ability to offer a system with a wider scope of specification to future customers) and EnerSys (to achieve the specification and throughput of the new Oxide Mill) to support business requirements. This improvement had the positive effect of ensuring the post-project review at senior level within the business had positive outcomes for all involved and brought the formal aspect of the project to a successful close.

Continuous Improvement became the way forward for the new plant and over a period of twelve months many smaller-scale opportunities were implemented. The most noticeable was to install a further modification to the cooling water systems to make them a fully closed loop water process for the cooling requirements which effectively eliminated the total loss waste of water that had been the original design concept. This was a further shared success output of the project between EnerSys and the OEM as they both saw positive outcomes from the reduction in water use and an improved environmentally friendly solution than was previously available.

Over the next two years I was promoted into production management roles leading to the position of Site Operations Manager, completing many projects and changes through CI implementation. I facilitated Six Sigma Blackbelt level projects, including waste stream reduction projects and scrap reduction of a key battery production process.

5.4. REFLECTIVE PRACTICE TWO – REFLECTION

As I moved forward from the electrical infrastructure project my mind was active with thoughts and it was around this time that I reviewed my desire to learn more in a number of new areas for me including reflecting on learning experiences (experiential learning) and EI. I came across a quote from Albert Einstein in Walter and Marks (1981, p. 1) that seemed to sum this up by providing the conditions required for positive learning experiences: *“I never teach my pupils; I only attempt to provide the conditions in which they can learn”*.

The initial decision to take on this project placed me in a position of difficulty with my peer engineering colleagues at my new employer that at first I dismissed as resentment that I thought I could overcome through my professional competence and assumed people skills. I underestimated the depth of this early in the project through my unsuccessful attempts to gain support from the incumbent engineering team and this required me to reflect on how I might be able to change the situation around.

My limited knowledge of experiential learning (Walter and Marks, 1981) and *‘developing professional knowledge and competence’*, Eraut (1994) afforded me a base understanding of theory to support my appraisal of EI that I needed to put into practice. Although I wasn’t aware at the time I was at a point of learning and reflecting almost concurrently, this identified as the difference between reflection-in-action and reflection-on-action (Schön, 1983) however I did not fully appreciate this at the time.

Salovey and Mayer (1990) discuss the adaptive use of emotions, with creative thinking and motivation derived from persistence having the potential to affect individuals and groups behavioural patterns through successful EI management. The emphases in their theoretical approach were individual adaptation and mental health; including the development of credible communication skills supporting an EI approach to management.

Professional knowledge cannot be categorised independently from how it was learned and how it is to be used. It is through looking at the context of its acquisition and intended use that its essential nature is revealed (Eraut, 1994). This was of particular interest to me as the paper mill colleagues and managerial teams support at the paper mill were evident once the project plan was agreed and in place. The project at EnerSys did not provide the same start point due to the relationship differences and hence the learnings I had taken from the previous project were not immediately

transferrable. Eraut (1994, p. 33) confirms this stating: “*that there is little immediate transfer of learning from one context of use to another*”. In essence using an idea in one context does not enable it to be automatically used in another and it is important for the learner to consciously realise this and adapt.

Eraut (1994) claims that a significant proportion of learning associated with any change in practice takes place in the context of its use. It was customary within the literature to talk about knowledge being initially acquired and then subsequently used as and when circumstances permit. Eraut (1994) refutes this suggesting that new learning is not only recognised at the time of learning; it is associated with new input, new use and within the period in-between learning and use there is further opportunity for reflection on input or contemplation of use.

Throughout early meetings with the EnerSys team the withdrawn, aggressive nature of some individuals towards the project and me became evident. As previously stated I used a positive approach in line with AI to assist with managing the team and supporting all members accordingly. Walter and Marks (1981) note that highly aggressive or dominant members of a team can reduce the active involvement of others through intimidation and inhibiting them, whilst monopolising the time available causing conflict. Identification, persuasion and support are the change processes most directly related to the leaders presence and behaviour. Modelling desired behaviour, presenting information in a convincing manner, and providing comfort and support promote change (Walter and Marks, 1981).

To change the team dynamics I purposely drew the main characters into structured debates to ensure they had no option but to participate in resolution of issues by appointing them as lead roles within group activities where they had technical role power and a level of relationship power with other team members. My decision to allow them to lead discussions rather than sit back and criticise ideas became a useful method of driving success as the formal project plans moved forward towards the installation.

There is a risk with this approach, captured by Walter and Mark (1981), who flag up that coercion, under most circumstances is undesirable and effort should be made to avoid it, even if inadvertently occurring. I maintained the position of facilitator for the meetings, ensuring I could steer the context back to formally identified objectives and outcomes through influencing rather than coercion.

As the project moved towards completion I became '*too driven*' towards the planned outcomes and my desire to continue on one particular evening was not in line with any of the commissioning teams view involved that night. I wanted to complete one more trial before closing the commissioning process down for the day and had not taken sufficient account of the outstanding effort that the team had already put into progress already made. On previous occasions I had pushed for more and received positive responses leading to the exceeding of planned milestones.

This constant push for more mentality had been instilled in me from the chemical and paper industries I had previously worked in; however it did not fit within the EnerSys culture and I hadn't fully appreciated that. My desire to push on was potentially at the point of adversely affecting the now buoyant commissioning team through forcing them to stay for one more trial. Through what I now believe to be an intuitive opportunity for reflection-in-action, I recognised that I was about to make a critical error and recovered the situation by closing down the commissioning program and conducted a positive five minute overview with the team before breaking up for the day. Their unspoken relief was evident [body language] and I learnt a great deal about myself that night from people management and expectation perspectives.

I reflected that they would likely have stayed under duress, however from an '*emotional banking*' perspective I had certainly withdrawn more than I had deposited that day and the decision to cease work recovered this somewhat. Eraut (1994) suggests that when the action is '*hot*' self-awareness is more difficult as there is little opportunity to notice or think about what one is doing. Schön (1987) uses the term reflection-in-action to mean the process of making sense of an action whilst it is taking place, using that new knowledge directly and possibly learning something from that experience to extend ones knowledge base. Once the action has passed it cannot be changed however the learning from it may affect the future and how you approach similar situations.

Boud and Walker (2000) offer an example in their work suggesting that they transitioned from '*reflection after the event*' to '*reflection which takes place during the event*', this baring a striking resemblance to Schön's work, whilst they also became astutely aware of the need for preparation of future experiences. I reflected for a matter of seconds to make the decision to stop for the night and resume commissioning the following morning. At the time this may have been simply a yes / no decision, however the justification I had to make with myself for the reasons to push on or stop were very much based on Schön's reflection-in-action approach and I certainly felt that I was '*thinking on my feet*'.

The above situation was particularly relevant to me as through my earlier career I had never been one to ‘*suffer fools*’ and when I first became a manager of significant numbers of colleagues around 1996 I was expectant on them to deliver to the same level, rate of output and standards that I placed upon myself. I reflected frequently on how I had initially approached supervision and management of others’ behaviours and for the first time I truly understood that we are all different and individualistic and that my approach had been over optimistic, forceful and at times insensitive. These were challenging ‘*home truths*’ for me to reflect on and use to my advantage as I moved forward in my career.

Candid feedback I have requested from those I trust; personal and professional over a number of years, suggested they too saw me as very driven in all I do and I had to learn to modify the expectations I placed on others whilst maintaining my professional standards. This was an acceptable compromise that I made with myself, and from my perspective, was one of the fundamental changes in my approach to managing others through reflection. Indeed if I behaved the same now in my current role I would not be a credible manager as I have to deal with numerous, complex people based issues on a daily / weekly basis. I would not be effective if I allowed the circumstances or frustrations of said events to affect my professional judgement and capacity to make decisions and complete work effectively.

Whilst reviewing the literature, Heron in Boud et al. (1985) captured the difference between experience and reflection summarising this elegantly suggesting:

“The reflection phase can only work with the fruits of the experience phase, and everything depends on whether the inquirers are ‘awake’ or ‘asleep’ during the experience. They are awake if they are practising what I have described...as open awareness, phenomenological discrimination, and active choosing while they are up at the experiential frontiers. They are asleep if their attention becomes too identified with what is happening and they slip back into conventional, routine, habitual, ad hoc ways of being. If they stay awake they bring a large amount of fruit for reflective harvesting, whereas if they fall asleep there is a meagre yield” (Heron, 1985 cited in Boud et al., 1985, p. 137-138).

Through this project I had to work through a number of barriers, both technical [hard skills] and people [soft skills] to bring the project to a successful conclusion. Four useful steps to working through barriers are identified by Boud and Walker (1993). The first is to accept that barriers exist, secondly the barriers need to be understood and named as the more clearly we can describe them the more chance we have to work with them. The clarifying and naming can come from our own reflection and experience or from the help and experience of others.

The third step is to identify how the barriers operate by examining their origins; a useful concept in this regard is critical reflection which presupposes that our experience is substantially influenced by the presuppositions we bring to it. The fourth step is to work with the barriers; this can include strategies that are confrontational or transformative. Re-examining experiences from a current more powerful situation, or reframing old experiences or concepts through new understanding can lead to their transformation.

Proficiency on routine is essential for competence (Eraut, 1994), however it is the ability to deal with the non-routine matters which is responsible for excellence. This project required the development of new technical and process skills coupled with the requirement to steer site colleagues who were apathetic on conception, into a credible project team to support the project objectives. The cross-over of cultures through working with the Italian OEM provider, created '*uncharted territory*', however through the opportunity to learn about EI and cultural differences prior to the project, this was successfully achieved.

The project was completed successfully with no accidents or incidents occurring, to budget and time-scale, with 100% production capacity following the modifications to the cooling system. I learnt a great deal about teamwork, managing diversity, EI, cultural differences and the need to look for positives in situations, when on initial review they may not be evident.

5.5. SUMMARY

Following this project I consolidated my position as Operations Manager of the site before completing a Master's degree and taking on responsibility for a three-year downsizing project due to a change in business strategy and market conditions. Whilst numerous projects since that time could have been successive opportunities for sharing a third, fourth or more reflective practices, the two described within the thesis up to this point were step-change opportunities in approach and were thus chosen.

The paper mill project was a task-orientated project supported by a level of change management and colleague engagement I had never attempted to that degree previously. The second project contrasted with this, making culture and change management the lead elements rather than the technical task elements, taking me into a further development opportunity. Figure 35 illustrates the steps utilised to successfully complete the project. These form the intermediate steps built upon the initial foundation to provide the CI implementation model defined in Chapter 7.

The impact of specific elements is signified by the colour change towards red in relation to trust, culture, EI and colleague engagement.

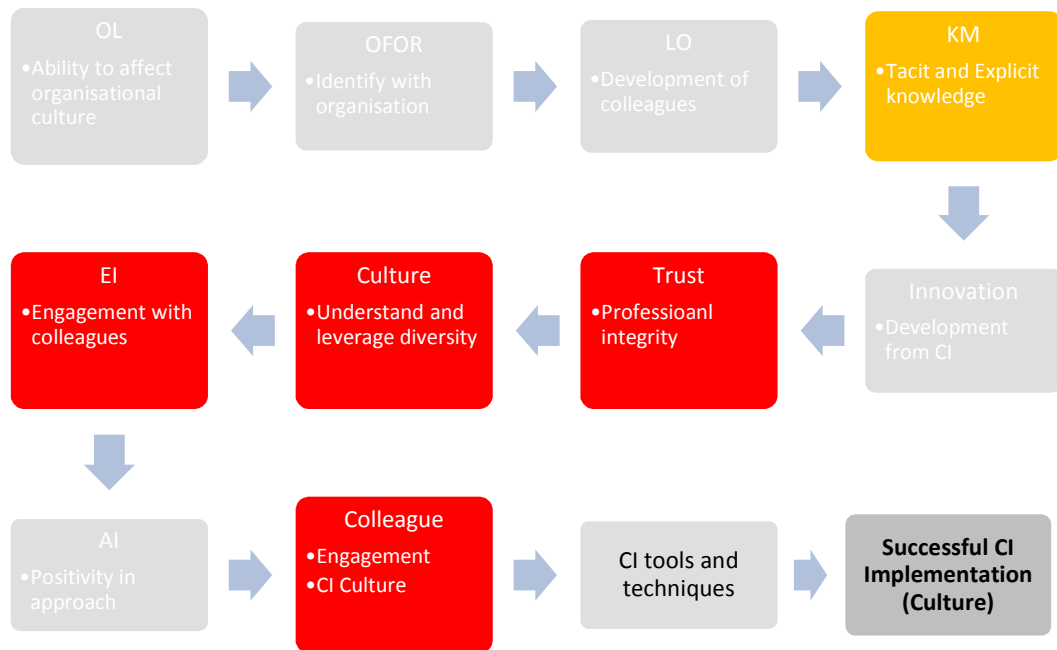


Figure 35 – CI implementation Intermediate Model, (Author's Own).

The following chapter culminates with the third reflective experience, in effect the thesis journey, and the continuing development of my understanding of how to approach the implementation of a CI culture. This recent past to present day reflection provides a new perspective to reflective practices, including opportunities to reflect-in-action complementing previous reflection-on-action experiences.

CHAPTER SIX – REFLECTIVE PRACTICE JOURNEY #3

6.1. BACKGROUND TO REFLECTION #3

The diagram below (see Figure 36), illustrates the third reflective experience which was to review Continuous Improvement (CI) implementation practices, specifically targeting task vs. culture orientation of organisations and individuals, and the relative merit and influence they command. The relevance to this part of the thesis is that it provided the opportunity to develop my understanding of CI implementation processes honing in on the cultural orientation and importance of an Organisational Learning (OL) approach.

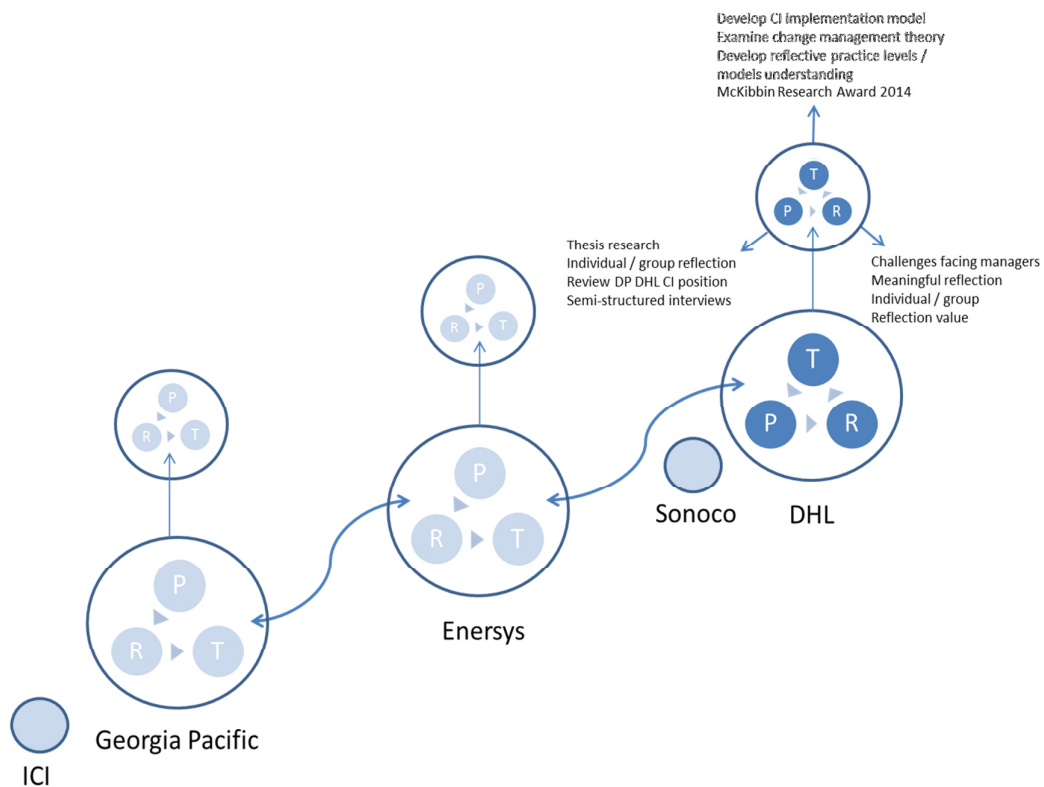


Figure 36 - CI Implementation, reflective practice project three (Author's Own, 2014).

As I move to the present day I find myself in a Senior Engineering Management role, responsible for Engineering, Information Systems (IS) and CI for a Regional Distribution Centre (RDC) of strategic importance to the customer. The site employs 1200 colleagues supplying a significant percentage of daily demand for a leading supermarket chain for the whole of the UK. CI is identified as a key area to support present and future development of DP DHL's business growth strategy. The organisational ethos is based on an approach of being '*First Choice*' for employees,

customers and investors and CI is fully embedded within this as part of the DP DHL Strategy 2020 namely Focus, Connect and Grow.

Over recent years my role in CI has changed from being actively involved in running projects to a more supportive, lead managerial role with one distinct question to answer. It is not how to complete CI projects successfully; it is how to implement the culture of CI. This to specifically target the region identified as UK&I and potentially the wider regions of DP DHL internally, whilst providing a CI Implementation Model and recommendations that can be utilised externally by the wider CI community. This will form the basis of the theory review relating to this section of practice including an examination of models and reflective practice developments.

The journey from basic common sense reflection to productive reflective practice based on formal objectives and auditable recording of reflective outcomes are discussed as part of a wider theory review. Models including the Johari Window and Batari's Box are evaluated as part of a wider appraisal of reflective practices theory taking into account deeper learning, identified as transformative learning. This supports the objective of gaining a wider understanding of current theory and how it might be successfully applied to the third reflective opportunity of the thesis.

Figure 37 provides an overview of the CI implementation processes. On the left-hand side of the diagram the key elements are identified, with the right-hand side depicting the circular cycle of empirical research and primary data from semi-structured interviews, CI culture and CI tools, supported by the thesis, providing structure in the approach to development of the CI Implementation Model.

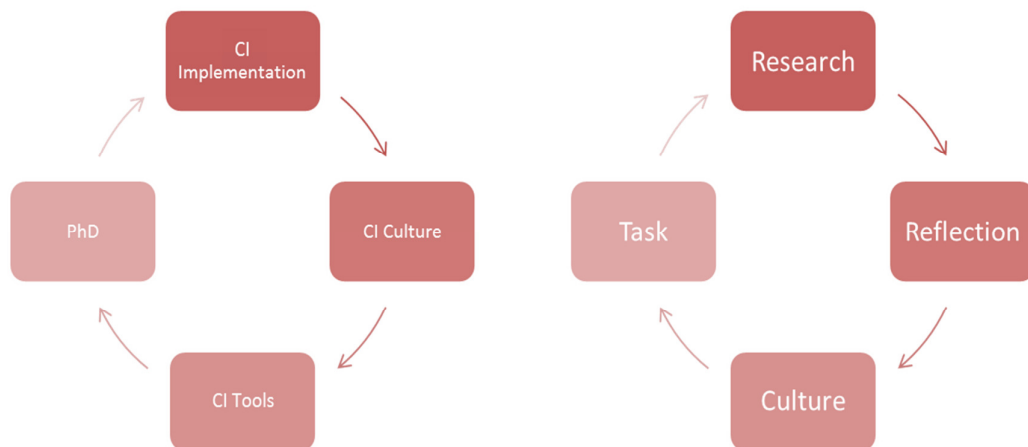


Figure 37 - CI Culture Implementation, project overview and reflection (Author's Own, 2015).

Continued Professional Development (CPD) is discussed drawing on similarities to CPD within the professional engineering profession and how it might be practical for CI practitioners to utilise for their development. The softer skills requirement of CI implementation managers will be examined to understand the impact of applying Emotional Intelligence (EI) in a formal way to improve colleague engagement.

6.2. REFLECTIVE PRACTICE THREE – THEORY

The initial form of reflection (Moon, 2004, p. 82) is described as common sense reflection, which in simple terms, is the basic level of thinking we do on a daily basis, with no links to reflection and is based on descriptive rather than analytical grounds. This type of reflection lacks the element of directed learning as it has no formal structure or consideration of how it can be assimilated in a meaningful way. To improve in your profession, thinking rather than reflecting on an experience, is unlikely to support this. Previously made mistakes can be repeated as no improvements have been formally identified or embedded into your professional practice (Roffey-Barentsen and Malthouse, 2013).

Dewey (1933) introduced the concept of reflective thinking; his main interest was problem-solving and he observed that when you begin the process of thinking about something, it is normally preceded by a problem, worrying or upsetting situation that cannot be resolved. This results in a feeling of uncertainty or unease where we need to '*take stock*' of the situation to understand what the nature of the problem was, what were you attempting to do, what you actually did and what was the result.

Schön (1991) introduced the second approach to reflection known as reflective practice. There were two distinct elements; reflection-in-action and reflection-on-action. Reflection-in-action occurs when a person is required to take some form of action whilst an experience is occurring; in effect experiencing and reflecting concurrently to affect the on-going experience and outcomes; it enables us to bring remembered experiences and skills into play when we need them (Bolton, 2010).

Reflection-on-action differs in that the experience has passed, however you take the time to reflect on what occurred within the experience asking questions such as why did X happen, what could I have done differently to X to improve the outcome Y or could I have modified my behaviour to affect the way the experience progressed.

Moon (2004, pp. 214-216) developed a framework for reflective writing indicating four categories, these are summarised and tabulated below:

Descriptive writing	Some references to emotional reactions however they are not explored or related to behaviour The account relates to ideas or external information Little attempt to focus on particular issues Limited or no reflection
Descriptive account with some reflection	Descriptive with some limited addition of external ideas, some reference to alternative viewpoints Limited notion of asking questions, however no analysis Sense of recognition that learning can be gained from the experience / event
Reflective writing (1)	There is description but it is focused on particulate aspects Evidence of external ideas Some analyses undertaken Willingness evident to be critical of the action, self or others Some level of standing back from the event Different perspectives are considered
Reflective writing (2)	Description now only used to set the context Clear evidence of standing back Self-questioning evident, with critical self-awareness Viewpoints and motives of others are taken into account, multiple perspectives Recognition that events exist in historical and / or social context Clear observation that learning is to be gained Formal recognition that personal frame of reference can change according to one's emotional state.

Table 15 - Moons Framework of Reflective Writing (Roffey-Barentsen and Malthouse, 2013).

When reflective practice is combined with CPD it becomes a means by which professionals can extend their knowledge and skills to maintain and increase their respective levels of competence throughout their professional lives. In this context, reflective practice can be extended to professional reflective practice identified as the third approach to reflection (Roffey-Barentsen and Malthouse, 2013).

Professional reflective practice is not restricted to thinking about learning as a single entity; it encompasses all aspects of your professional practice, including formal meetings, conversations, attendance at seminars, internal or external training events. Unlike reflective practice, professional reflective practice requires formal evidence of how you benefited from your experience professionally; it is not sufficient to simply describe a conversation (Roffey-Barentsen and Malthouse, 2013). Table 16 indicates the three identified approaches to reflection:

Common sense reflecting	Reflective practice	Professional reflective practice
No consideration of organisation.	The use of the Reflective Practice Cycle (Kolb, 1984).	The use of the Professional Reflective Practice Cycle.
Descriptive writing.	Analytical writing.	Writing an analytical, evaluative and synthesised level.
Few or no links to previous reflections.	Links to previous considerations.	Links to previous considerations.
Usually not recorded.	May be recorded formally.	It is recorded formally
A solitary process. Not intended to be read by others.	Generally a solitary process but ideas may be shared with others.	A shared process therefore it can be read by colleagues.
Not used as a development tool.	It is developmental mainly personal development.	It is developmental mainly professional development.
It considers the past more than the future.	It is often aspirational in nature.	It is goal orientated with SMART objectives.
It is self-absorbed.	It makes clear links to professional practice.	It makes clear links to professional practice in a broad sense.
No considerations given for future practice.	It employs the use of an action plan.	It employs the use of an action plan.

Table 16 - Three approaches to reflection (Roffey-Barentsen and Malthouse, 2013).

Professional reflective practice is used to differentiate between the personal reflective practice associated with an individual's development and the broader concept within the professional area. Reflective practice is concerned with the progression of an individual through naturally occurring events whereas professional reflective practice relies upon the individual actively pursuing opportunities they can participate in to improve reflective practice. Roffey-Barentsen and Malthouse (2013) designed a professional reflective practice cycle to support understanding of the process (see Figure 38 below).

The cycle shares best practice from Kolb, Schön and Gibbs, introducing elements that are pertinent to an individual's professional working environment. The model consists of four distinct areas namely:

- Experience. What actually occurred?
- Reflection. Thinking about the experience.
- Professional practice. How does this relate to my professional practice?
- Action plan. The identification of SMART objectives and an action plan.

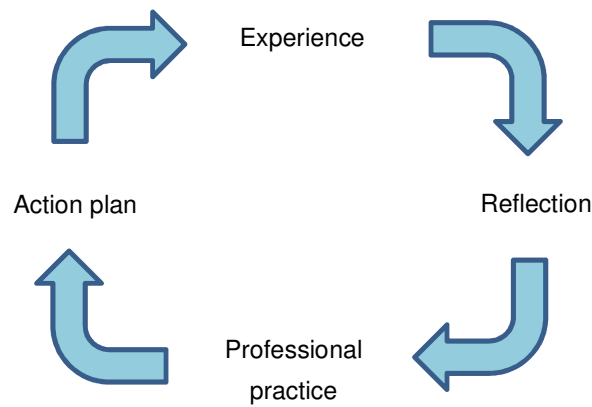


Figure 38 - Professional reflective practice cycle (Roffey-Barentsen and Malthouse, 2013).

The professional reflective cycle usually begins with some form of experience, which can take many forms, and it is not restricted to the learning environment or event. The considerations can include attending a specific training course, meeting or seminar, or can be on a more personal level if you had received feedback from an assessor, tutor or mentor.

Following the experience it is necessary to think about what occurred, why it occurred and how did it unfold; this reflection can be over a matter of hours or potentially over a longer period of a few days as you take necessary time to reflect. Professional practice is the next phase of the model. It is useful to have some formal method to evaluate the experience, for example, through asking a number of pertinent questions (Roffey-Barentsen and Malthouse, 2013).

These could include the relationship the experience had compared to your professional practice and how it might affect your individual practice. Simple questions such as what did I learn, what will I do differently as a result, what felt good and bad about the experience and am I being objective or subjective in my approach would be typical of the process. The final part of the cycle involves the creation of an action plan; this can take the form of specific goals as a result of the experience taking consideration from your professional practice.

The goals should be SMART, a mnemonic for Specific, Measurable, Achievable, Relevant and Time-bound. When you have achieved your identified goals you are ready for your next experience taking learnings forward as you continue your CPD. It is easy to take for granted the motives behind reflection, often the reason as a professional is extrinsic; you do it because you have to. It supports your CPD, assisting you to become more professional as you develop your problem-solving skills,

your critical thinking, decision making, organisational skills or your personal change management processes (Roffey-Barentsen and Malthouse, 2013).

The requirement for CPD is not fully understood by all and Roffey-Barentsen and Malthouse (2013) offer a simple example from the medical profession that conveys the message. Would we visit a doctor who had qualified many years ago and taken no interest in new developments in their profession since that time? The likely answer is no as we would expect them to be aware of the latest medicines, therapies and treatments available for our benefit as a patient. The same argument can be applied to all professionals, being qualified alone is not enough to remain '*professional*' and the need to engage in CPD is evident. To summarise; reflective practice is part of being professional.

From my perspective the need for CPD to maintain the requirements for professional registration of the Institute of Engineering and Technology (IET) is a specific obligation identified within '*The UK Standard for Professional Engineering Competence*' (UK-SPEC) for professional registration, supporting the importance of CPD. The section is identified as 'E' and is headed: *Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment*. The details therein: *Carry out continuing professional development necessary to maintain and enhance competence in own area of practice*.

The UK-SPEC offers examples of how to achieve this; by keeping up to date with national and international engineering issues, maintaining CPD plans and records and involvement with the affairs of your professional body. Evidence of your development may include on-the-job learning, private study, in-house courses, external courses and conferences. This could include the ability to:

- Undertake reviews of own your development needs;
- Prepare action plans to meet personal and organisational objectives;
- Carry out planned (and unplanned) CPD activities;
- Maintain evidence of competence development;
- Evaluate CPD outcomes against the action plans;
- Assist others with their own CPD.

Maintaining CPD leads to the need to briefly explain what is meant by professional(ism). Many definitions are offered in published texts, however a concise

version is offered here by Freidson (2001, p. 17) stating: “*professionalism is a set of instructions which permit the members of an occupation to make a living while controlling their own work*” whereby the notion of controlling your own work is also referred to self-regulation (Roffey-Barentsen and Malthouse, 2013). Professionalism results as a consequence of setting and maintaining high standards, specialist knowledge, education, sharing values and experience in a particular field (Bolton, 2010).

Reflective practice was originally introduced to address well-documented problems in professional practice and has been adopted by many professional bodies as the accepted approach to support the development of emerging and experienced professionals (Bradbury et al., 2010). This moved reflective practice from the margins of educational and organisational theory to mainstream professional education and development practice (Roffey-Barentsen and Malthouse, 2013). Rather than reflection being the bedrock for radical transformation of practice, instrumental approaches now predominate diluting the importance of context, power dynamics or ideological challenge (Bradbury et al., 2010). Consequently reflection is frequently used as a tool for personal and professional development and professionals are expected to produce written reports limited to assessment criteria, rather than questioning and challenging their reflections.

Boud (2010) shows concern at the way reflection is envisaged and the manner in which teaching has, in some instances, interpreted reflection in recent times. It is not a recipe to be followed and reflection without learning, over intellectualising reflection and uncritical acceptance of learners’ experiences is far away from the ideas that Donald Schön and many other advocates of reflection in the literature would wish to see (Boud and Walker, 1998). This prompts further review by Boud and Walker (1998) who offer a perspective that those from a technical orientation may see reflection as part of an apparatus for instrumental learning. Reflection as articulated does not fit their models of knowledge and skill transmission leading to them pick up superficial features of reflective activity whilst leaving out the core.

Roffey-Barentsen and Malthouse (2013) suggest that reflection requires SMART objectives as an output from reflection, facilitating formal assessment as part of professional development. Boud (2010, p. 28) suggests that this compounds the issues with reflective practices stating: “*by inappropriate assessment procedures such as the marking of raw reflective journals...had the effect of inhibiting the expression of any reflection by learners that might have been fostered through keeping a journal*”.

The intrinsic reasons for reflective practice come from within yourself and for those who strive to be professional, it can assist with having a positive state of mind and body. The benefits of reflection may be quite subtle at times; often you will only see them after further reflection and they can be different depending on our distinct personalities, backgrounds and situation. Whatever the motivational driver is for you to engage in reflective practice a likely outcome is that you will increase your knowledge and understanding of yourself (Roffey-Barentsen and Malthouse, 2013).

Within published literature there are numerous benefits identified in relation to reflective practice; a number are offered here to provide the reader with a summary overview. Moon (2004, p. 84) identifies a link between reflection and learning with the consideration of reflection '*in*' learning (Moon, 1999) suggesting that reflection is involved in some forms of learning, but not in all. Moon (1999) refers to a continuum with a '*surface*' approach at one end of the continuum and a '*deep*' approach on the other. Surface learning describes a person who is only concerned with the superficial aspects of a subject; there might be some accommodation of the cognitive structure, however there is no general aim on the learner's part to understand in a manner that might change their view on this area of learning as a result of the new knowledge (Moon, 1994).

The deep approach to learning demonstrates the learner's intention to assimilate the new material and in doing so, allow the current knowledge and understanding to be modified so as to accommodate the new. The subject matter is analysed, links are made, causation, effect and consequence are identified and knowledge is evaluated and transferred (Roffey-Barentsen and Malthouse, 2013). This can only be by achieved by commitment to reflective practice (Moon, 2004). The term '*transformative learning*' has been used to describe this openness to changed understanding and it is the most advanced stage named on the map of learning (Moon, 1999).

Moon (2004, p. 60) makes reference to the Structure Of Learning Outcomes (SOLO) taxonomy that was developed by Biggs and Collis (1982), stating: "*It is a hierarchy of five levels of complexity in the structure of represented learning*". Within this taxonomy there are five levels of understanding with each respective level increasing in complexity. The effect is cumulative in that each new level incorporates the previous one, with more added to it. Table 17 below provides a brief overview:

Noticing	The person has pieces of knowledge. They do not necessarily understand what they know and are unable to organise the information.
Making sense	Some connections between the pieces of knowledge are identified but these are tenuous and lack comprehension or awareness.
Making meaning	Now more connections are being made but not enough to make a claim to full comprehension.
Working with meaning	All the connections are made in relation to the whole.
Transformative learning	The person is able to make connections with the specific subject matter and has the ability to go beyond it. As a result they can take a broad view and transfer the principles and ideas to other subject knowledge areas.

Table 17 - Biggs and Collis (1982) SOLO taxonomy (Roffey-Barentsen and Malthouse, 2013).

The model below (see Figure 39), represents a pictorial method of indicating the progression from surface to deep learning (Roffey-Barentsen and Malthouse, 2013).

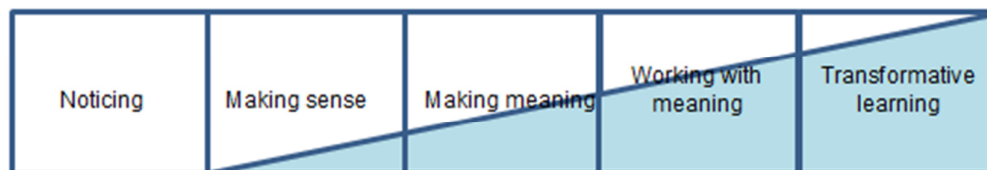


Figure 39 - Surface to Deep Learning (Roffey-Barentsen and Malthouse, 2013).

The shaded area indicates the level of reflection associated with each level. It is noticeable that one of the defining characteristics of surface learning is that it does not involve reflection (Moon, 1999) and the model confirms this. The relationship between deep learning and the transformative level and reflective practice is clear; the deeper the learning is, the greater the need for reflective practice. The converse way to understand this is that the use of reflective practice will enable the user to progress through the taxonomy as reflective practice will enable them to understand the subject in a meaningful, connected sense.

Dreyfus and Dreyfus (2005) identify stages through which someone moves from being unfamiliar to becoming an experienced practitioner. Their stages are; novice, advanced beginner; competent; proficiency and expertise. They show concern at the loss of ability to recognise relevance being critical of '*expert systems*' as an instant source of information when related to learning. They discuss that any approach to learning which does not recognise that motives, commitment and actions are always involved may be superficial in nature. "*No amount of rules and facts can capture the knowledge an expert has when he or she has stored experience of the actual outcomes of tens of thousands of situations*" (Dreyfus and Dreyfus, 2005, p. 788).

Reflective practice can improve the ability to problem solve in a number of ways, however before you can solve a problem you have to know that there is a problem and identify what the problem is. For many acknowledging that a problem exists is not desirable as they may feel responsible for the problem and thus be culpable. This is where reflective practice can support the individual (or team) through acknowledging problems exist and reflecting on how to work through them (Roffey-Barentsen and Malthouse, 2013; Schön, 1983).

There are many published works describing the steps for problem-solving, and the thesis describes CAPA and DMAIC as two recognised CI tools supporting this requirement within the literature review. As a reminder for the reader a simple six step approach to problem-solving is noted below, however no further explanation is offered at this juncture to maintain focus on the thesis theme:

- Clarifying and describing the problem (clarification).
- Analysing the possible causes (analysis).
- Considering alternatives (deliberation).
- Choosing one (selection).
- Putting into practice (initiation).
- Evaluating whether the problem was resolved or not.

The area of critical thinking sits alongside reflection whereby it leads the user to ask pertinent questions, to look for proof, assess statements and arguments and have a sense of curiosity (Roffey-Barentsen and Malthouse, 2013). The tie in to reflective practice is through the understanding that a critical thinker does not have all the answers they require and is willing to listen to others. Reflection necessitates an open mind, and in support of this the critical thinker suspends their judgement until all facts have been gathered and considered. Barnett (1997, p. 71) points to critical thinking as providing us with an intellectual space to enable: '*a critical stance*' to open up, recognising that all knowledge we encounter is contestable.

The use of reflection can lead to a change of one's mind; as a critical thinker they will be able to adjust opinions when new facts are uncovered. Moon (2004, p. 86) suggest that: "*reflection slows down the pace of learning*". Reflection requires the luxury of time for thinking, unless you find yourself reflecting-in-action (Schön, 1983), however in other circumstances this time can support the critical thinker into producing a considered opinion based on reflection. Decision making is supported through problem solving and critical thinking. You will have to make decisions as you reflect on

situations and the more you reflect the more likely you are to improve decision making capability. Decision making suggest you are to '*decide*' what action to take based upon a situation and reflective practice can enhance the ability to make good decisions.

Organisational skills are a key focus for all professionals with busy schedules to attend to and there is often a need to decide '*what not to do*'. The ability to prioritise is evident and the use of reflection to support this process can reap rewards for the individual under pressure. Organisational skills complement time management and time can be the most valuable commodity we have as professionals. Becoming better organised requires practice of self-management skills; this can be achieved by an increased level of self-awareness of your personal issues in relation to your organisational skills through reflection and subsequent modification of behaviour (Roffey-Barentsen and Malthouse, 2013).

The level of awareness we have relating to a particular experience may be affected by numerous influences; the situation, environment, task, object or person. Where we have a higher level of familiarity with circumstances we can respond in a semi-automatic manner (Roffey-Barentsen and Malthouse, 2013) leading to the potential to miss subtle opportunities for professional reflective practice. Three levels of awareness are briefly described below: those being primal, emotional and cognitive.

Primal awareness is a basic level of awareness where you are focused on the here and now and do not take into consideration events that may be occurring around you. You are likely to accept situations as they are perceived with little thought for others unless they can affect you personally. It relies on a reaction to events as opposed to any considered action; it embodies your most basic values and sense of self, where your own well-being is considered before all else (Roffey-Barentsen and Malthouse, 2013). Relating this to professional reflective practice allows you to understand situations that do not require reflection due to their simplicity, or that you choose not to be concerned with. As you develop your reflective skills they will support you in understanding those with a primal awareness [of closed and un-enquiring mind] allowing you to approach them in an appropriate manner to facilitate your working relationship with them.

Emotional awareness is closely related to your feelings and as a consequence it can be reactive in nature. A person's awareness at this level confines their thoughts to view the world in a judgemental way, without taking the time to think why. The outcomes of situations are likely to be good or bad; there are no shades of grey. The advantages from a professional reflective practice perspective are that in a positive

way you are inclined to be enthusiastic about a subject if you feel it is worthy. It can be observed during periods of change whereby the individual gives value to what is occurring in terms of whether they agree or not. The negativity contrary to this is that little enthusiasm is shown for areas of no interest; being unlikely to become engaged in an activity against your will, and on occasion the individual may react emotionally which may be inappropriate at times.

When a person sees the world from a more informed basis this is known as '*cognitive awareness*' (Roffey-Barentsen and Malthouse, 2013). Cognitive processes are caused by the execution of stored programs that operate on internal, symbolic representations of the world and according to this principle, human cognition is a species of symbolic computation (Ohlson, 1990). Cognitive learning theories look at the individual as an information processing system that can be viewed as analogous to a modern computer in that software programs are internal to a computer in a similar way that expectancies, beliefs and other mentalistic constructs are internal to an individual (Pear, 2001).

Cognitive awareness is achieved by critically considering and analysing information to make sense of the world. Emotions will still be present; however they will be tempered by engaging in cognitive thought. People will attempt to identify problems that exist for them and others, searching for appropriate solutions and do their best to resolve them. Contrary to emotional awareness, the cognitive approach sees all the shades of grey; black and white do not exist. From a professional reflective practice perspective deeper insight is anticipated through a cognitive approach rather than emotional (Roffey-Barentsen and Malthouse, 2013). Awareness at this level will ensure all aspects of a situation are explored and any links recognised; taking time to consider the complexities of a situation and evaluate it, implying that the chances of a successful outcome are more likely. One disadvantage noted is known as '*paralysis of analysis*' (Starkey, 1996) where too much thinking and not enough action may be evident, this is a recognised concern to take account of.

One model, the Johari window (see Figure 40), was named after its authors' Joseph Luft and Harry Ingham combined their first names. It is a model to indicate the aspects of human intervention and self-awareness. Each window represents a feature of personal awareness and is described in terms of what is known to us, about ourselves and what is known to others (Luft, 1969, p. 13). Hussey (2000, p. 64) present it as a way of interpersonal communication that enables one person to develop trust and increase understanding with another.

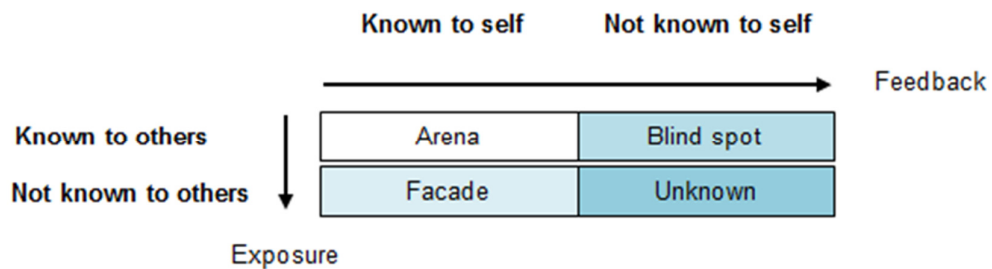


Figure 40 - The Johari Window (Luft, 1969).

The arena, or open window, represents things you know about yourself and that other parties also know about you (Hussey, 2000). These can be of a personal or professional nature; in essence it covers any characteristics of you that are known. This window includes all the factors mutually shared with others and can be large or small dependant on how much others know about you, or get to know in the future. As you share more with them the window increases in size as they know more about you. When the arena window is very small communication is greatly hindered; the more we know and share with others the greater potential for effective communications. When trust is established the arena window can expand (Hussey, 2000).

The blind spot window represents things that others know about you that you are unaware of. This window can represent aspects of your personality that you are unaware of such as a tendency to avoid some conversations and introduce others you are more comfortable with or that you tend to be attention seeking in company. An example might be others perceive that anxiety reduces your effectiveness (Luft, 1969) but you do not see or admit to yourself that you are anxious. To move from a blind spot window to arena requires trust, psychological safety and that others will give us candid feedback that we will accept (Luft, 1969).

The façade or hidden window represents things that you know about yourself that you hide, or decide not to divulge to others. Self-disclosure could be construed as leading to the loss of some level of social standing. As individuals the disclosure level will change with different people from a life partner knowing a great deal about us to others knowing less. As and when we divulge information to others will affect the size of the open and hidden windows respectively. Others may see a '*false you*' that leads you to be on your guard so they do not see the real you (Luft, 1969). Maintaining a large façade takes a lot of energy to maintain as you are constantly masking who you really are to others. Moving from a façade to arena window requires trust and psychological safety to allow the sharing of perceptions with others to take place.

The unknown window is peculiar in that it contains information that neither the individual nor others are aware of, in essence both parties are ignorant of information about each other (Hussey, 2000). Working on a new project or with a group of people may enable us to realise aspects of ourselves that we were unaware of previously. In new situations we do not always know how we are going to react until we find ourselves there.

The model represents the process of socialisation and the contract we commit to when we socialise with others. The windows of two individuals can change in size as we disclose something about ourselves and expect others to reciprocate. The process will continue until a point is reached whereby one party is unwilling to disclose any further. Idealistically the open window would be large and growing, compared to the other three windows (Hussey, 2000; Roffey-Barentsen and Malthouse, 2013). Hussey (2000) provides a clear overview of the descriptive elements of the Johari Window (indicated in Figure 41).

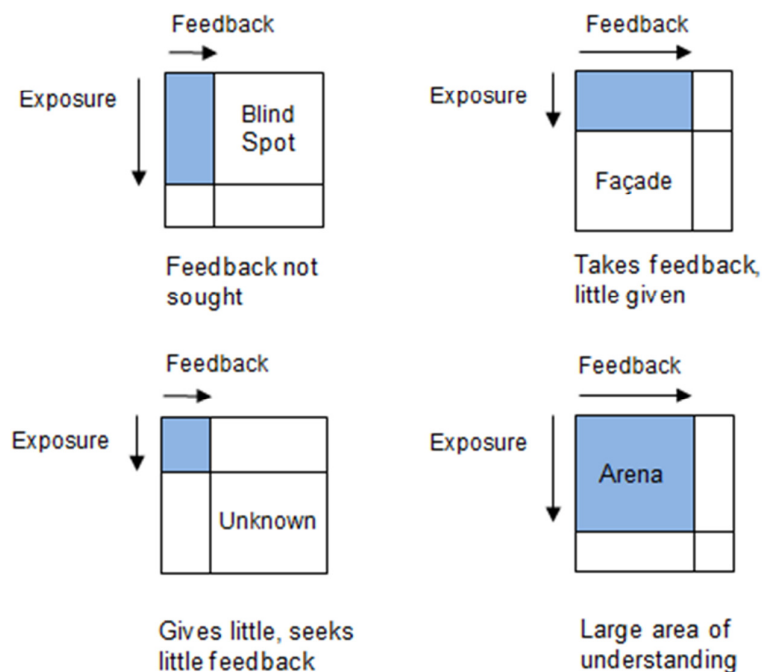


Figure 41 - Unhealthy and healthy communication (Hussey, 2000).

For the purposes of professional reflective practice, the Johari Window can be beneficial when considering '*soft skills*' which consist of active listening, co-operation, inter-group and interpersonal development (Roffey-Barentsen and Malthouse, 2013).

The Batari Box offers a further model relating to behaviours and how the interactions between people can cause conflict from the initial encounters (see Figure 42 below). If you are in a negative mood through some previously occurring circumstance there is a strong possibility it is going to affect your attitude; possibly unconsciously. If you are alone there may be time for this feeling to diminish to a point it is no longer an issue, however if you interact with another person problems can occur. Effectively the model portrays a situation where your attitude affects your behaviour, which in turn affects their attitude and subsequently their behaviour; this is a simple, however pertinent model to appreciate (Roffey-Barentsen and Malthouse, 2013).

The skill of the individual carrying negative thoughts with them is to be self-aware of their state of mind and make a conscious effort to inhibit them at the first stage of Batari's Box. If attitude affects behaviour then a conscious awareness of this is the first step to modifying behaviour. An awareness of Batari's Box therefore enables the individual to check their state of mind and consider if their attitude is the most appropriate one. If not, you have the possibility to change it without it becoming known. The productive connotation to Batari's Box is that a positive attitude; leading to behaviour that can positively affect another person is achievable. When this is the case the outcomes are constructive for both parties.

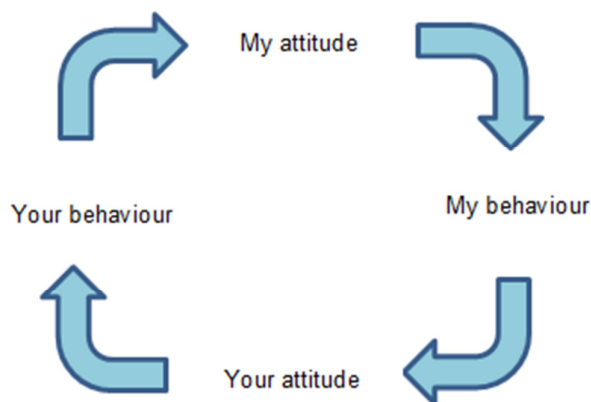


Figure 42 - Batari's box (Roffey-Barentsen and Malthouse, 2013).

There are many ways in which an individual can react to a situation, however it is possible to generalise in terms of the level of acceptance they have in relation to a situation or change (Roffey-Barentsen and Malthouse, 2013).

The Five P's (see Figure 43) progress from one end of the scale '*the protestor*' who is not happy at all about a situation, to the '*performer*' who fully embraces change.

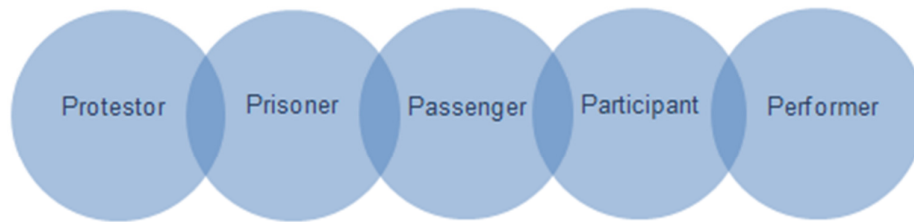


Figure 43 - Five P's (Roffey-Barentsen and Malthouse, 2013).

The significance of the variants is that they offer various distinct perspectives enabling an individual to position themselves in relation to a given situation. The protestor is an individual who is unhappy about a situation in which they find themselves in and is willing to vocalise their displeasure. The cause of their disquiet is tied to outside influences and is associated with having a lack of autonomy. This position carries with it a feeling of unfairness or of being treated unjustly. Often though the recipients are unwilling or unable to act on their own behalf and the individual may not be totally rational.

The prisoner is similar to the protestor however they are not as vociferous. Associated with this position is reluctant acceptance, acquiescence or submission. They are unhappy with a situation, however they feel powerless to make meaningful changes. They may feel disenfranchised but unable to walk away from the situation for whatever reasons they hold. The prisoner is not happy.

The passenger is akin to being driven along a country lane to nowhere in particular and with little interest on the part of that passenger. They are neither happy nor unhappy about the journey, and are content to look back at the changing scenery. The significance here is that they take no responsibility for the direction or speed of the car and are happy for others to make decisions on their behalf. They will deal with anything that comes their way, however this will be reactive rather than proactive.

The participant accepts the changes and is willing to engage with a positive attitude having bought into the new situation. They will take personal responsibility for their endeavours and can be relied on to follow through with their actions, the caveat being that they will do what is expected and no more by meeting the demands.

The performer feels able to make a difference and is actively engaged in a situation or event and tries very hard to do well and may be considered to be overly keen by others. They are happy about the given situation and are genuinely interested in it, wanting to learn more. They see changes positively and seek to learn as much as possible from the experience. They will be happy to perform any task asked of them and embrace change, expecting the same from others.

Use of the Five P's model enables the individual to identify which of the Five P's represent their own feelings in relation to a situation. This is useful as individuals do not always appreciate their own reactions or behaviours until they are considered or pointed out. Frequently, little conscious thought is given to one's response to a situation where a person's initial response is often emotional.

The Pointman Leadership Institute (2013), cited in Roffey-Barentsen and Malthouse, (2013, p. 105) identifies what they call the '*paradox of change*'. In essence this identifies the forces demanding change versus the forces resisting change (see Table 18). The areas noted within the table are closely linked with published literature relating to change management practices that are now widely established with Kotter (1996) known for his approach to change management.

Forces demanding change	Forces resisting change
Economic	Fear of unknown
Social	Fear of failure
Environmental	Effort or work
Legal	Lack of skills
Current way is ineffective	No perceived need
Technology	Habit
Political	Negative
Competition	Vested interests

Table 18 - Paradox of Change, (Pointman Leadership Institute, 2013).

Research into the programs running within DP DHL resulted in the review of and subsequent attendance at a residential training program in November 2014, identified as Accelerating Change and Transition © (ACT). This program exhibits considerable alignment with Kotter (1996) seminal book *Leading Change*, in that it approaches change management following a number of logical steps that focus on the human (individual) elements of change rather than task oriented project management skills.

The ACT program provided an organisation-wide perspective on how DP DHL are attempting to increase the success rate of project implementations by taking the human element into more consideration. It is noted within the training materials that seventy percent of all projects fail due a lack of taking human elements into consideration. This was ratified with other published works including Sahar-Khiz (2011) who commented that from 1994 to 2009, over two-thirds of information technology projects failed to meet the three constraints of schedule, budget, and scope due to lack of project managers' soft skills. Table 19 offers a comparison between Kotter's work and the DP DHL approach to change management.

Kotter - Leading Change, 1996.	DP DHL ACT Program, 2014.
Establishing a sense of urgency	Creating a Shared Need
Creating a guiding coalition	Planning and executing change
Developing a Vision and Strategy	Developing a Vision
Communicating the Change Vision	Communicating Change
Empowering Employees for Broad-Based Action	Mobilising commitment
Generating Short-term Wins	Sustaining Momentum
Consolidating Gains and Producing More Change	Aligning the Infrastructure
Anchoring New Approaches in the Culture	Leading Change

Table 19 - Kotter (1996) - Leading Change / DP DHL ACT Comparison (2014).

6.3. REFLECTIVE PRACTICE THREE – PRACTICE

The balance of formal planning to set out my PhD timelines included the expectations of the university to apply for, complete and subsequently update research documentation to track progress made against agreed targets. Parallel to this I had my own understanding of how I was to progress the thesis following its original conception. This plan was rigid enough to ensure it was targeted with milestones; whilst allowing a level of flexibility to react to unforeseen opportunities as and when they arose.

My personal and professional time management was always going to be a challenge to work full-time and complete a PhD, and on reflection, I underestimated the breadth of research available and had to manage the problem of '*the more you see, the more there is to see*' spiral and had to decide what not to do (Roffey-Barentsen and Malthouse, 2013). Whilst reflecting on the most appropriate way to communicate the practice element of my third reflection I decided to pick out milestones over the last three years that were influential in the shaping and direction followed.

The professional intention for me through undertaking the PhD was to continue my learning journey and Zukas et al. (2010, p. 13-14) capture this stating:

“If professionals are learning intentionally, and the work-place provides opportunities to engage in new activities and to refine what has been learnt, with direct sources of knowledge and indirect guidance...in this way learning and practice are integrated”.

Boud (2010) introduced productive reflection which is organisational rather than individual in intent; collective rather than individual in orientation; generative rather than instrumental in focus; connecting learning and work; involving multiple stakeholders and connecting players; and most importantly it is recognised as an open, unpredictable process open to change over time. Through the many interactions that have already taken place with professional colleagues', productive reflection has been possible through the learning processes of the thesis, including opportunities to share new thoughts and learnings with colleagues at every opportunity. Boud (2010) captures the significance of other aspects in relation to professional learning; team based and / or collective approaches to work; relationships with clients and those we co-produce our professional practice with.

The initial period of the thesis through early 2013 was occupied with understanding where to target the breadth of research and specific elements to review. I used the MSc literature review from previous academic learning at *The University of Bolton* as a starting point and this led me into a number of other areas that expanded to cover the following through 2013 and into 2014:

- Overview of CI tools
- Organisational learning
- Learning organisations
- Organisational Frames of Reference (organisational identity and overall goal setting/targets)
- Knowledge management (tacit & explicit)
- Innovation (trust & strength of relationship)
- Culture
- Cultural Models
- Emotional intelligence
- Appreciative Inquiry

The scope was wider than originally anticipated and whilst it may have been possible to disregard areas of research to reduce the workload I felt the above provided the diversity of topics, and in some cases inter-relationships, to understand the breadth of softer elements as to why CI implementation programs fail to deliver as expected.

The original intent was to support my employer, DP DHL through identification of opportunities to improve CI implementation across the UK&I and potentially the wider DP DHL. Should this be successful it was envisaged that specific recommendations and outputs may be applicable to the external CI community. As the PhD progressed I became aware of a parallel path of development in a number of the areas I have been focusing on internal to the organisation. This allowed me to share my thoughts through the three-year process and offer my perspective from formal research, reflection and experience based standpoints.

The practice for phase three of my thesis took me from the past to the present, looking towards the near future as I developed my understanding of DP DHL and their approach to CI. Since the initial idea to complete the PhD in the autumn of 2012, I have been '*living my journey*' week to week, frequently attending the university library, numerous seminars and conferences and internal forums of DP DHL. I wrote a short thesis in the spring of 2014 for the McKibbin Research Foundation Award (see Appendix 6) initiated by *The Chartered Institute of Logistics and Transport* (CILT). This would not have been possible had I not embarked on the PhD to develop my underpinning knowledge in relation to CI implementation processes.

As I continue to work on the different elements of the thesis my understanding is evolving and I realise at this stage how important it is to bring tacit and explicit learning experiences together as part of the overall aims and objectives of the paper. Schön (1991) identified the possibility that reflection-in-action could become stale and routinised, arguing that reflection-on-action prevents this by revisiting previous judgements in a more analytical manner designed to make tacit knowledge explicit. This more deliberative judgement after the event allows decisions that were made quickly in the heat of the moment to be revisited allowing for a wider range of options or theories to be considered (Munro, 2008).

I was originally sponsored by the European VP for Quality from October 2012 and attended a number of CI and quality forums to share thoughts and understand the perspectives of European based colleagues on how to drive the CI culture change program within DP DHL (see Appendix 5 for supporting evidence). Through the early

part of 2013 I was requested to co-author a '*Day In the Life Of* (DILo) document with a colleague relating to what a CI culture would look like for a visit to a site. Further to this I worked as part of a small team to develop a '*European Quality Guideline Document*' for CI and these documents are located on the DP DHL iShare portal. In June 2013 I was formally introduced to the VP Global Operations Excellence and European VP for SHEQ as a potential avenue to expand my internal networking opportunities in DP DHL with regards to the thesis.

In November 2013 I compiled a brief overview of my research for the VP Global Operations Excellence and European VP for SHEQ identifying the research topic areas and a rationale as to why they were relevant to CI implementation. This initial work developed into a request that I complete a formal presentation detailing the thesis topic areas, including the development of observations and recommendations. This presentation was planned to be available by the end of April 2014 and was duly delivered on the 27th April 2014 (see Appendix 7).

It was around this time that I was made aware of the McKibbin Research Foundation Award opportunity by my General Manager (GM) and I made the decision to enter a paper. My initial application was accepted and I commenced researching the paper in May 2014. This short thesis took approximately fifty hours to complete and I felt the time would not be wasted as it complimented my existing PhD literature review. It was made available to the CILT in July 2014, and in September 2014 I was formally notified that I had won the national award. This was followed by an '*Annual Awards for Excellence Dinner*' to receive my award in October 2014 attended by the DP DHL Retail Managing Director. I was subsequently invited to share the outcomes of the thesis with the Supply Chain Retail Executive Team in October 2014 which afforded me the opportunity to network with colleagues several levels above me, a prodigious experience. This award was also recognised in the DP DHL iRetail magazine circulated to colleagues across the business and the equivalent CILT publication sent to their membership.

Opportunities often come from unexpected circumstances, and the offer to interview a number of the executive team for my PhD was an unforeseen outcome of the meeting I attended in October 2014. I reflected at the time as to how this opportunity had presented itself to me; I could not have planned the set of circumstances to achieve this result. Reflecting on EI and self-awareness in the way we approach situations the above indicates the potential for a set of unique circumstances to provide unexpected opportunities that we need to be aware of and embrace when they arise.

Through June and July 2014 the majority of time was spent on research in order to develop the approach for the one-to-one interview process. The majority of interviews took place between August and October 2014 with initial interviews providing additional direction in support of developing the final set of questions used. The interviews provided confirmation of the researcher's preceding understanding at a ratio of approximately 70:30 known vs. unexpected outcomes with potential opportunities and reservations identified as to the present position DP DHL find themselves in.

In the same time period as the interviews were progressing I attended an external training course, run by *Clarity Interactive* affording me the opportunity to become part of the Leadership Enrichment Program (LEP). This included my first exposure to EI in DP DHL since joining the organisation. This was an excellent training program and the opportunity to reflect on what I learned and how it might be used in my thesis and future development are discussed within the recommendations.

I attended a Process (PI) Workshop at a DP DHL customer site that a group of senior PI managers facilitated in 2014. This was an excellent day, where best practice projects and opportunities were shared. The room had a high level of energy, however through networking at coffee break and lunch it was evident that a small minority of colleagues had attended '*because they had been requested to by their line manager*'. This did not detract from the day for me, however I did reflect on this and in numerous future networking opportunities I attempted to understand if PI colleagues identified were actually involved in PI and / or believed in it; the biggest issues noted were a lack of resource and available time to complete PI activities credibly, an on-going theme.

In December 2014 I was involved with a pilot level review in relation to the DP DHL Certified Supply Chain Specialist (CSCS) program that is planned to be rolled out through 2015 and onwards. Through the initial session I became aware that the two consultants delivering the content were using an Appreciative Inquiry (AI) approach in their introduction to the meeting. They were talking about being in the Discovery phase, continuing with the use of a real-life, positive story to energise the group. From my observations the cross-section of colleagues known to me in the group were more energised than I have seen previously under any circumstances.

This was a '*eureka moment*' for me and I discussed this with the consultants at the first breakout opportunity. When I asked about their use of Appreciative Inquiry (AI) they were taken aback at first as: "*no one usually picks up on that*". One had been formally trained in the use of AI previously and had found it to be particularly useful when

engaging with new groups of colleagues. The ensuing conversation debated the practical use of AI and the outcome of this discussion supports future recommendations.

My opportunity to reflect on this coincided with reading Gillie Bolton's *Reflective Practice: Writing and Professional Development* (Bolton, 2014). I couldn't think of a metaphor to express what it felt like to see AI in action, however whilst reading the preface to Bolton (2014), Jo Turner talked about an 'aha' moment with reflection in the context of rowing as a precise art and I felt this epitomised my feeling:

"You must have the confidence in your boat and oars, but also confidence in your ability to let go and trust your natural instincts. I will let you into a secret. The best way of introducing this feeling is to take away for a moment the crew's vision. To get them to shut their eyes. This lifts outside interference and pushes back those constraints of how it ought to be to how it is. Shutting your eyes and letting those natural instincts take over can be daunting but liberating".
SEE HOW IT CAN BE DONE IF YOU JUST LET GO...

(Turner, 2008 cited in Bolton, 2014, p. xix).

Chivers (2010), discusses the value of learning from complex or multifaceted problems; including innovative and pioneering experiences. Learning from multidisciplinary working, clients, customers and from switching perspectives, by working in a different part of the organisation or secondment to a partner organisation. Networking featured strongly as a mechanism for learning as did learning through moving outside the organisation to represent it.

Whilst not identified originally, the networking element of how to increase my understanding of the internal DP DHL community became ever more evident over the last two years. Not only did my desire to learn more drive me to make opportunities happen through networking, I consciously looked for rigour in internal processes to try and ascertain if the process elements provided the necessary framework for colleagues to work effectively. As recent as February 2015 I was asked if I would join a small team from the OMM / CI community looking at CI Change Management; the topics I have researched were discussed and found to be particularly relevant to the group and feedback suggests my input was seen as positively contributory, this has continued through March and April 2015 and I hope to see this opportunity develop in the future.

6.4. REFLECTIVE PRACTICE THREE – REFLECTION

“Workaholics with no fixed hours of work, preoccupied with the challenges of their jobs twenty four hours a day, seven days a week, may be found today not among slaves, but among the elite of the lucky and successful” (Bauman, 1998, p. 34).

Frost (2010) discusses that the modern professional often feels stressed and pressured, with targets to meet and actions to address. The professional has taken ownership of their role and organisational performance in such a way that they are willing to work whatever hours are required to demonstrate a high level of output. The rapid change of social change makes life-long learning, be that informal or formal, essential for professionals.

Wax (2004) comments that there is a greater need for highly skilled employees in the modern workplace and it is necessary for these colleagues to interact effectively in order for their organisation to work successfully. In hierarchical structures where colleagues are effectively competing for a small number of more senior positions this may detract from their cooperation with others (Wax, 2004). An interesting notion if applied to productive reflection opportunities and how they might ensue.

Castells (1996) discusses the need for professionals to hold a world-wide reference point as they have to use the World-Wide-Web, travel to conferences around the world and understand cultures from diverse corners of the globe. We can communicate across the world in real-time, retrieving information from almost anywhere in the world, confronting issues and challenges from many cultures. As a consequence, quite literally, the space for reflection has had to be restructured and it is now global, diverse, changing and complex. This implies that reflection is a form of practice based upon material reality; not simply a form of reflection ‘*within the head*’ of the individual professional.

With the speed at which the world is changing, the professional has to challenge and review their expertise; contemporary professionalism is a process of continuous change and reflection. Add to this the need to appreciate the wide range in the diversity of their interactions and the demands from the information explosion that require so much time to respond to and the scene is set for a challenging time for reflective practitioners (Frost, 2010).

I have made several professional and personal '*sacrifices*' to enable the thesis to become a reality. Working [and studying] excessive hours for a period of three years from a work-life balance perspective has been a significant challenge; coupled with slight unease that I hope successfully completing the thesis will not adversely affect the positive, professional relationships I have with others. This born from a comment made to me by a senior manager that: "*others may not like it*" [the fact I have a PhD], being something I had not considered up until that point. My family have been incredibly supportive and patient, allowing me to travel abroad alone to study without distraction numerous times through the intense research element of study.

Hunt (2010) suggests *they* became '*knowingly*' involved in reflective practice in 1994 alluding that they had engaged in a sort of reflection much earlier whilst worrying about professional practice and how best to go about it, especially when it went wrong. Apart from helping to identify how to become ever more effective in the exercise of one's profession, reflective practice can also be a means of exploring our own personal process of making meaning. This enables us to state clearly for ourselves and others that this is where I am and what I do now, this is how I got here and these are some of the reasons why I think / feel / act as I do. Colleagues frequently ask why I would '*do a PhD for no financial gain as there is no point*'. I often feel obliged to explain the '*why*' which is easy for me; I do it because it is important to me to continue to learn, reflect, develop and share knowledge and experiences, I am a more rounded person for it.

Bolton (2010) alludes to reflecting on practice in a meaningful way as key to improving the process; leading to discoveries, most notably a richer understanding of who we are, identifying that most reflective opportunities relate to the questioning of experience (Boud, 2010). Dewey (1933) saw this as the exploration of a state of perplexity, hesitation and doubt. Schön (1991) considered reflection as a position whereby you find yourself surprised, puzzled or confused in a situation found to be uncertain or unique. Practitioners work in mixed settings that change over time and in groups that are formed and reformed for particular purposes related to whatever the organisation exists to do. Historically reflection was treated as an individual experience however (Boud, 2010) discussed productive reflection, group based rather than individual reflection. (Roffey-Barentsen and Malthouse, 2013) added that professional reflective practice is a collective process therefore it can be shared with others.

One area of concern for me at the beginning of the reflective approach to my thesis was the '*requirement*' to reflect. I had always had a reflective approach to experiences, however the sudden '*need*' to reflect initially felt mechanical, causing a deeper level of

individual reflection to take place. Participants in reflective activities must, without coercion, choose to undertake reflection, if they do not they cannot effectively engage with the embodied nature of practice (Boud, 2010). This angst soon passed and has not been an issue, however the learning here is that any attempt to force reflection will not work in an individual or team environment - participants have to want to reflect.

Reflection with groups of people for collective purposes involves high levels of commitment to the task, a willingness to be open to the ideas and experiences of others and most importantly have a reasonable level of trust (Boud, 2010). From the onset of the thesis I have spent considerable time with CI practitioners known to me to 'test' ideas and thoughts leading to many positive individual and small group reflective opportunities; relationship strength and mutual trust were evident in all cases.

The immediate difference at this mature stage in the thesis is that I have moved from reflecting-on-action, predominant through 2012 to 2014, to a process whereby I feel am reflecting-in-action on an almost continual basis (Boud and Walker, 1998: Schön, 1983). This is coupled with less frequent, deeper reflection of recent and historical events as I re-evaluate my thoughts and understanding through new experiences and learning opportunities. As I sit in the library reflecting on where I am today, it is evident that I am not the same person who started the thesis; my world-view has changed and I find that I challenge all manner of circumstances from a reflective perspective. This has not affected my ability to make quick decisions where necessary, in fact in those circumstances pausing for a matter of seconds or minutes to reflect has proved its worth. Bolton (2014, p. 6) captures this suggesting: "*With more experience, we have more to draw upon; reflection-in-action can work more swiftly to bring appropriate values, knowledge, skill or theory into use*".

Collier (2010) discusses the concept of self-spectatorship in relation to reflective practice. This is when a person re-imagines a past event in their professional practice which is similar to the process of creating a play or scenario; it is the recreation of an imagined reality. As with a play at the theatre, by creating a scenario, the person reflecting will begin to consider how and why the particular event is important to them. Relating to the AI example I felt myself moving from a participant in the group to somehow watching the session unfold as though I was looking through a wide-ranging viewpoint remote from mine; I associated this to a modern head camera we see on cyclist helmet as they record their journey to review later, seeing the same experience unfold through a panoramic view.

Pulling out the living element of reflection, Bolton (2010, p. 28) relates to stories and how we: *"want good characters to gain their hearts' desires, the bad to founder. We experience joys and tragedies vicariously"*.

Heron (1992) captures the creativity he sees in relation to reflection. For Heron, imagination is a *'presentiment'* that is felt by the person *'doing'* the imagination. It is packed with latent meaning, but this meaning is apprehended through metaphor or analogy and is therefore not fully comprehensible. The value of creativity and imagination in the reflective process allows the experience of the professional to be *'mulled over'* before it is analysed in detail.

One area I became acutely aware of through the planning and subsequent practical element of the interview process, was that whilst all those involved had an affinity to CI in their role or professional interest they were from distinctly different backgrounds. When you have a transdisciplinary group such as this it cannot be presumed that common assumptions will underpin the activity taking place (Boud, 2010). The benefit of such a group is the distinctive positions they hold, the skill is to lever this out of them with appropriate probing and dialogue.

Boud (2010) notes that individuals are likely to change workplaces several times throughout their professional careers, or their workplaces will change around them, and individuals therefore need to adapt their ways of learning that are transferrable to different workplaces. The researcher realised through the interview discussions that all the interviewees had several years more service within the organisation; this had a two-pronged output. Firstly they were able to relate to longer timelines of the evolution of DP DHL and its CI / PI journey; secondly they all had a strong affinity to the company built upon years of experience having incremental opportunities to develop into more senior roles. My journey with DP DHL is approaching four years and I feel that I have only recently reached the point of gaining a more rounded construct.

Fook (2010, p. 50) articulates a perspective on critical reflection as involving: *"the ability to understand the social dimensions and political functions of experience and meaning making, and the ability to apply this understanding in social contexts"*, comparing it to an earlier quote from Argyris and Schön (1996: xxii) regarding Organisational Learning (OL) as learning about: *"the political conditions under which individuals can function as agents of organisational action"*. This takes reflection from the individual and adds a sense of internalised and personally experienced political conditions (Fook, 2010).

Where this relates to the researcher, indeed any colleague, is what personal meaning we take from the political conditions within the organisation. In effect do we feel the OL culture of the organisation and / or do we feel able to affect changes in organisational practices. The answer to these questions will likely show a wide variance based upon many inputs, both individual and organisationally motivated.

The Executive meeting in October 2014 was what I call a '*powerbase meeting*' and reflects that the colleagues in the room are looking after some 35,000 employees and over £1bn worth of business. The size and scope for implementation of CI in such a large part of the organisation does not tender easy solutions; this was an area I reflected on frequently reviewing how I saw the corporate plans and more localised approaches to CI implementation coming together. By example, to complete one days training per colleague within the Retail Division alone would cost somewhere in the region of £3m with the pertinent question of '*would be this treated as providing longer-term benefits or a short-term cost?*' With the added complexity of closed book and open book customers this would be no easy task to execute. Add to this the scope and diversity of occupations included and the need for effective learning processes, supported by systems and values becomes evident (Billet and Newton, 2010).

The possibility to develop outputs of the thesis into workable opportunities for DP DHL and the wider external CI community to improve implementation will be a true measure on two counts. The first one is poignant to the researcher; are the thesis outputs relevant and of interest to desired parties? In effect will they be perceived as credible, of value and capable of being implemented successfully? Secondly, are DP DHL and the wider external CI community open to the critique of where they may be presently and willing to make the cultural changes around engagement and approach that may be required to improve CI implementation programs?

In response to the first question, reflexivity is of particular interest. As described by Payne (2002) reflexivity is easily confused with reflection, indeed some argue they are inextricably linked. Payne explains this in terms of a circularity; whereby the process of reflection itself influences future action in an on-going feedback mechanism:

"Reflexivity means that we constantly get evidence about how effective or worthwhile our actions are, and we can change what we are doing according to the evidence of its value. To do so, of course, requires being reflective, because we have to be constantly alert to the possibility that what we are doing needs to change and we have to keep our minds open to changing according to the evidence we see about the effect we are having" (Payne, 2002, p. 127).

Bolton (2010) sees reflexivity as finding strategies to question our own attitudes, thought, processes, values, assumptions, prejudices and habitual actions. We must strive to understand our complex roles in relation to others; becoming aware of the limits of our knowledge and how our behaviour relates to organisational practices and why / how such practices might marginalise groups or exclude individuals. It involves coming as close as possible to an awareness of the way we are experienced and perceived by others. It involves having an approach that retains a level of personal uncertainty and critically informed curiosity as to how others perceive things compared to oneself and the flexibility to consider changing deeply held ways of being. Thus, reflexivity gives reflection a chance to work (Payne, 2002).

From the researchers perspective the ability to '*interpret*' how the thesis is received by peers, line managers, CI practitioners and others is central; this to include potential changes required to make any identified opportunities more appealing. A number of colleagues have been supportive to the point of reviewing specific elements at draft status to understand their relevance and positioning as the thesis neared completion. The thesis and third reflective opportunity became one and the same for the researcher at the conception of the PhD; they have continued on a parallel development path since that time and it will be interesting to understand how any future reviewers see the value to CI implementation the thesis was intended to provide.

The second measure requires a much shorter response to answer it; are DP DHL [and external parties] a Learning Organisation (LO) that has an OL culture / ethos at its heart? The answer however, might well be more complex and lengthy in prose, and Bateson (1972) offered a thought provoking analogy to portray his thoughts to a similar question:

"I pictured the relations between ethos and cultural structure as being like the relation between a river and its banks. The river moulds the banks and the banks guide the river. Similarly, the ethos moulds the cultural structure and is guided by it" (Bateson, 1972, p. 93).

6.5. SUMMARY

All three reflective elements of the thesis were distinctly different in approach, yet each took learnings from the previous and many other reflective experiences over an extended period of time. This is best understood in the thesis introduction whereby the diagrammatical representation attempts to portray a level of simplicity in what has been a complex journey.

Whilst all reflective opportunities are distinctive at the time; when they are blended the theme that emerged for the researcher was one of task-orientation on one side with cultural change and softer skills orientation on the other, it is the weighting that oscillates, rather than the requirement.

This chapter culminates in the development of the final stages of the CI Implementation model leading to the diagrammatic representation detailed below (see Figure 44). The final elements of OL, Organisational Frames of Reference (OFOR), innovation and AI complete the model adding to the intermediate steps built upon previously. LO and KM remain highlighted as their respective weightings changed through the development phase of the model. The completed model is discussed within Chapter 7, including summarised accounts of the thesis reflective elements.

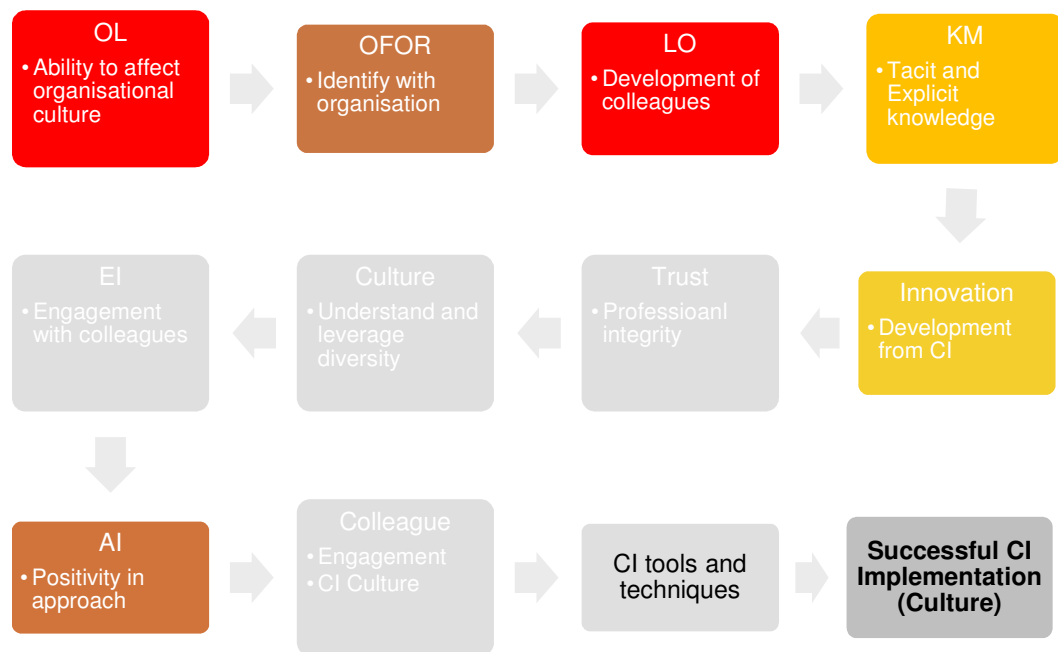


Figure 44 – CI implementation Model, Final Elements, (Author's Own).

CHAPTER SEVEN – SUMMARY OF REFELCTIVE PRACTICES

7.1. INTRODUCTION

This chapter draws the three reflective practice elements of the thesis together, and whilst there is a significant chronological gap between reflective practice two and three, the reflective journey continued throughout this time period and up to the present day. The updated diagram (see Figure 45), visualises the level of interaction between the reflective opportunities undertaken and will continue to develop in the future, with additional elements supporting new opportunities as they occur. The CI Implementation Model developed through the thesis is detailed within this chapter, derived from empirical data, semi-structured interview outputs and the CI knowledge of the researcher.

Reflection-on-action and reflection-in-action are identified as two different, yet conjoined approaches to reflection and the ability to reflect back [reflection-on-action] to the two projects prior to the empirical research supported the overall development of the researchers understanding as to the value of reflection in making informed decisions in the present day and the future.

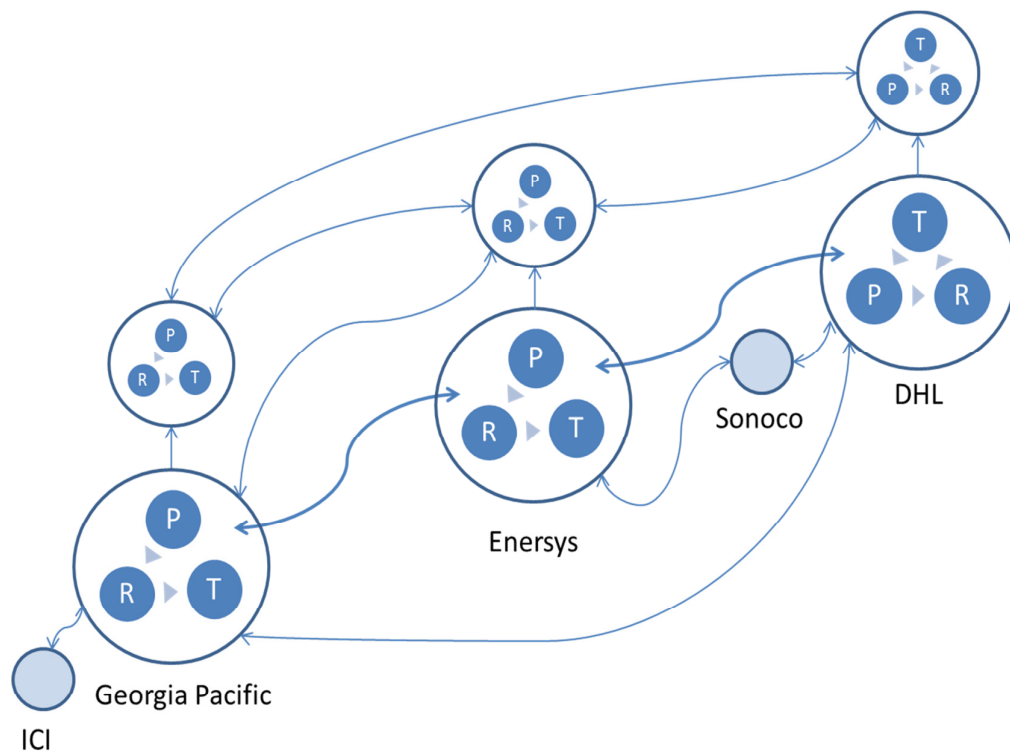


Figure 45 - Reflective Practice Interactions (Author's Own, 2015).

7.2. SUMMARY OF REFLECTIVE PRACTICES

The initial reflection back in 1999 at Georgia-Pacific presented a highly technical, task-orientated project. This project required an element of the softer change management aspects through cultural change and colleague engagement coupled with professional integrity and proficiency to succeed. As I began to reflect back on this time and capture my thoughts I soon realised that we often do work in a manner we are comfortable with *'because it feels like the right thing to do'*.

At this stage in my career developing as a professional through learning and professional knowledge management coupled with experiences led to numerous *'doing'* experiential learning opportunities. Walter and Marks (1981) typified this suggesting that experiential learning is that one learns best by doing.

The second reflective project at EnerSys shifted the balance of task and change management from a 75:25 task led to a 60:40 change management led requirement by impact, however the technical element remained high due to new technology in a diverse and unfamiliar field. By this time I was actively reading Emotional Intelligence (EI) literature; initiated by a senior work colleague, initially focusing on Goleman (1996; 1998). Concurrent to this I was increasing my professional development understanding and competence in line with Eraut (1994) published work *'Developing Professional Knowledge and Competence'* working towards professional registration as a senior engineer.

This was in a culture that was intensely challenging to understand and relate to, steeped in historical *'good times'* and restrictive working practices. The project stretched my leadership capability, developing further interest in understanding organisational and individual cultural approaches. It also provided the opportunity to undertake formal learning to increase my experiential based understanding of CI methodologies and their use; resulting in accreditation to Greenbelt level, comparable to DMAIC training bronze within DP DHL.

Between 2002-2006 my learning experiences felt exponential by scope. I changed from engineering to operations management; taking overall responsibility for a significant three-year downsizing project, whilst working on a Master's Degree in Engineering Management. Boud et al. (1994, p. 11) comment that: *"only learners themselves can learn and only they can reflect on their own experiences"*.

Perhaps because of my strong desire to learn and succeed, this period was very progressive for me professionally. Following completion of a Master's degree and the downsizing project, I led a number of major projects over coming years, technical and culturally orientated in scope, before joining DP DHL in 2011.

At the concept stage for the thesis I had been in the employment of DP DHL for approximately fifteen months. The support from the organisation was evident once I had understood and shared the direction in which I wanted to take the research, leading to the start of my three-year CI implementation study. The thesis portrays how I arrived at the present day, however this would not have been possible had a mixture of personal drive and determination coupled with internal and external support not been in place to support me. I am extremely grateful for the opportunity presented to me.

The third and principal reflective project, in effect '*the thesis*', shifted the balance of change management and task to what I considered to be an 80:20 cultural change [management] vs. task orientation. It was evident that a lack of understanding CI tools or their use was not the issue and I recognised that DP DHL were strong in the use of DePict, DMAIC, Plan-Do-Check-Act (PDCA) and other task-orientated CI based tools to manage projects.

As the research element gained momentum it became evident that as I understood more about reflective practices, the more I reflected on the what; why; when; how; where and who (Flood, 1994; Jasper, 2013) of how to approach projects. CI doesn't have to be complicated, and indeed the very essence of CI suggests it shouldn't be; it is about being lean, minimising or eradicating waste in all its forms and cutting out non-value adding tasks, whilst improving processes.

The parallels drawn between literature and practices witnessed by the researcher over the last three years indicated the willingness to improve CI implementation was evident within DP DHL. CI has been identified as a key area for the development of existing and future business strategy as the organisational ethos is based on an approach following the *First Choice Way* (FCW) for employees, customers and investors. It wasn't easy however, to pick out a clear strategy based upon FCW that was actually being followed, by whom, where and to what level.

The journey from basic common sense reflection to productive reflective practice based on formal objectives and auditable recording of reflective outcomes were discussed, including pro's and con's. Models including the Johari Window and Batari's Box were

evaluated as part of a wider theory appraisal of reflective practices supporting the researchers objective of gaining a wider understanding of current theory and how it might be successfully applied in the workplace.

CPD was discussed drawing on similarities to professional engineering and how it might be practical for CI practitioners to utilise a similar process for formalising their development. The softer skills [cultural and EI] requirement of CI implementation managers was examined to understand the potential impact of applying EI in a more formal manner to improve colleague engagement.

The semi-structured interview process afforded a valuable opportunity to discuss the views of a wide-range of professional managers; my desire to complete the semi-structured interview process successfully tested my discussion skills with no two approaches being the same. Within the interview process I was repeatedly reflecting-in-action and have mentally logged a number of '*do more of*' and '*do less of*' ideas should I find myself in a similar position in the future.

As identified by O'Leary (2004) a thesis should unfold and tell an interesting story. The process of turning the high volume of spoken data, through codification and identification of themes, into the narratives detailed within Chapter 8 has added to my confidence in providing written information in a manner that is both readable and informative, this may have been lacking as part of my skill-set previously.

Overall, the interview process, networking opportunities to develop new relationships and many other interactions with colleagues have filled me with a level of positivity and energy that I have taken as confirmation that DP DHL are serious in their approach to improving CI implementation. This to the point where there will be an embedded CI culture and business as usual (BAU) approach to CI.

Bolton (2014) suggests that reflection and reflexivity only develop when people gain a powerful link to what is at the heart of significance for them, enabling them to explore and make changes to develop practice based learning. The thesis content was certainly of significance to me and it has changed my world perspective. I cannot go back now and be who I was before, as he no longer exists. I need to continue my personal CI journey, one I know I will never complete.

7.3. SUMMARY

The closing reflections sum up the positioning of the thesis with regards to successful CI implementation processes for DP DHL and the wider external CI community. I have certainly achieved my professional development goal of increased learning through detailed research and analysis of the thesis topics and semi-structured interview outputs, leading to the development of the CI implementation model (see figure 46). My previous understanding of OL, LO, culture and EI have broadened, supplemented with an overview of AI that I intend to develop professionally and personally in the future.

This diagram illustrates the completed CI implementation model, indicating the steps required to successfully implement a CI culture.

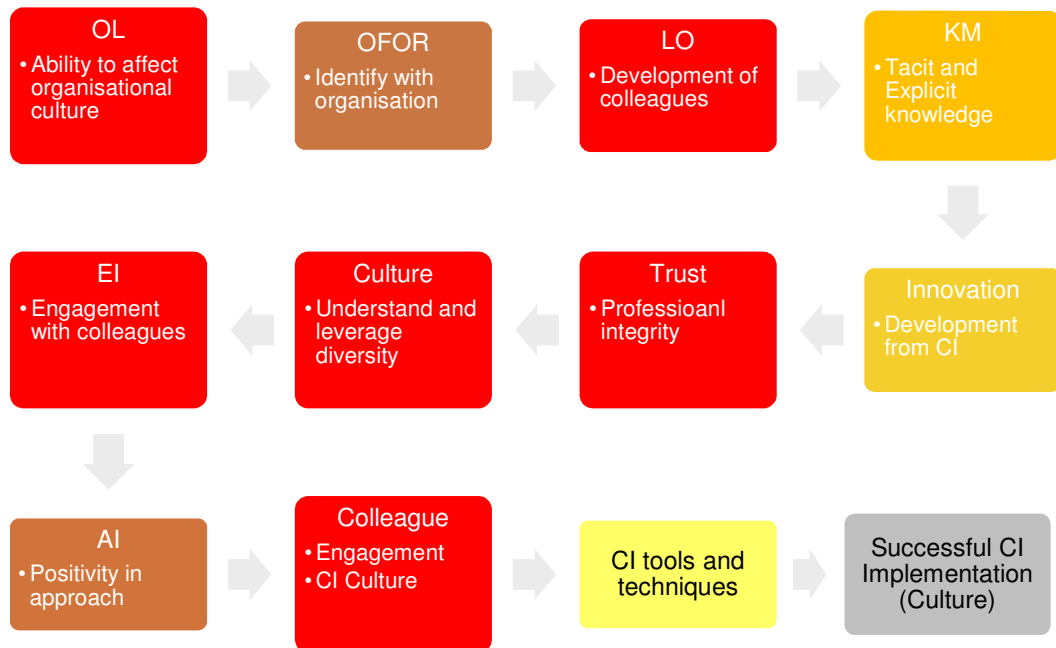


Figure 46 – CI Implementation Model (Author's Own, 2015).

Organisations that can realise the above steps afford themselves the opportunity to increase colleague engagement leading to a position whereby they are more open to the embedding of a successful CI culture. There is no guarantee of success, however organisations that can meet all or a majority of the areas identified are likely to find themselves in a stronger position than those which do not.

The use of CI tools and techniques, the final element in this model are often the first to be actioned in organisations, however approaching CI implementation in this way is not sustainable without cultural change taking place. It was evidenced within empirical data and semi-structured interview outputs that the people (cultural) elements of successful implementation are the key components and that a '*task only*' approach will not sustain a CI culture.

The following chapter explores the results of the semi-structured interviews providing feedback through a narrative approach. Asking the '*Why CI?*' question formed a key output of the interviews, leading to a number of supplementary conclusions and recommendations detailed within Chapter 9.

CHAPTER EIGHT – SUMMARY RESULTS OF INTERVIEWS

8.1. INTRODUCTION

The rationale for the research methodology chosen is detailed within Chapter 3, however a brief overview is provided herein. Researchers who use quantitative techniques and tools are known as positivists, whilst those who prefer to use observation, questioning and descriptive tools are known as naturalists. Positivistic research is based upon the precise definition, measurement and analysis of the relationship between a carefully defined set of variables. In contrast naturalists assume that reality constantly changes and can only be known indirectly, through the interpretations of people. Individuals who can tolerate uncertainty are more likely to favour a qualitative paradigm with its acceptance of multiple perspectives of truth and constantly changing reality (Becker, 1996).

Naturalists who emphasise that meaning is sifted through people's prior experience and biases are known as constructionists because they believe that people build or construct their understanding of the external world as they see it. Naturalist and constructionist researchers accept that researchers, as well as research subjects, make interpretations and that it is neither possible nor desirable for the researcher to eliminate all biases or expectations. Under the auspices of a naturalistic / constructionist paradigm, the fact that the interviewers or observers may reach different conclusions is not considered to be problematic, since meaning is always contextual and always interpreted (Herbert and Rubin, 2012).

Within the naturalistic paradigm, interpretive constructionism argues that the core of understanding is learning what people make of the world around them; how people interpret what they encounter, and how they assign meanings and values to events or objects. It is taken to denote an alternative to the positivist approach working on the premise that respects the differences between people and objects. It implies that social phenomena and categories are not only produced through social interaction, they are also in a state of constant revision (Bryman and Bell, 2007).

From the research paradigm review it was planned to take a naturalistic approach, that being interpretive constructionism. There was however, a requirement within the interview process to request quantitative data for an explicit evaluation of DP DHL CI implementation capability and interviewees perspective on the value of CI.

A consideration for choosing the research methodology was the context of the organisational improvement opportunity under review, namely the successful implementation of CI programs. Empirical data and the input of CI / PI practitioners and senior managers with an affinity to CI were of critical importance hence the use of semi-structured interviews. The selection process was purposive by design with the sample size of interviewees based upon theoretical saturation of data.

Whilst the interviewees were populated from within DP DHL, a review of the data by the wider external CI community would provide a compare / contrast opportunity, potentially leading to the possibility to share best practices. This thought is captured within the conclusions and recommendations chapter.

The questioning process followed a set number of questions with subsets of questions to prompt the interviewer should the conversation move to areas either previously not identified, or not touched upon by the interviewees. The intent would not be to steer the respondents' responses, rather it would be to ensure that areas of interest were explored exhaustively to develop understanding through the interview process. The researcher's previous experiences and exposure to CI provided a degree of content to the questions; however they were primarily derived from the literature review.

The depth of the interviews undertaken led to conversations equating to approximately seventeen hours of discussion and in order to detail specific elements of interest a two-stage process was utilised. Initially the discussions between interviewer and interviewees were transcribed (see Appendix 8 for example). These documents were subsequently coded to build up the respondents views bilaterally in a compare / contrast narrative approach of identified themes. Respondents were identified as R# where specific comments or quotes were noted; this method being maintained throughout.

The interview responses fulfilled two necessary functions; firstly, there was a level of confirmation in what was previously understood to be representative views of CI and associated topics. Secondly a number of unexpected outputs were identified across the interview population. These were categorised based upon the number of confirmed responses received with outlying comments also captured where future reflection on them may provide a further avenue of exploration.

8.2. QUESTIONS AND KEY FINDINGS

The ability of the DP DHL organisation to successfully deliver CI Implementation was targeted from two specific aspects; What do respondents see as the top three to five areas DP DHL need to be successful in to drive CI / PI implementation process and secondly from a reflective perspective are DP DHL an organisation that has successfully implemented CI / PI processes presently?

A repeat message was how we differentiate ourselves; R1 offered three specific areas *“firstly through cost, engagement and innovation, secondly through standardisation and thirdly through effective deployment of our CI culture”*. In summary the key areas identified as enabling successful delivery of PI / CI implementation processes were:

- Senior leadership sponsorship, including tangible evidence of support.
- Maintaining consistent leadership through implementation programs would better support positive outcomes.
- Use of employees existing skills and experiences needs to improve. We need to tap into the tacit and explicit knowledge in our employees.
- Minimum standards are an area requiring attention and this sits within the scope for the DP DHL Strategy 2020.
- Communication and understanding of programs such as First Choice Way (FCW) and other corporate programs needs to improve to enable increased engagement.
- We delivered in the region of £20m of benefit for our Retail customers in 2014; however this is not reflected in customers understanding of what we delivered against CI expectations presenting itself as an opportunity we need to realise.
- Margin erosion is causing behavioural changes from our customers; we need to work on changing this through driving a CI culture not a cost avoidance culture.
- Engagement with the General Manager population needs to increase; they can make the difference at a site between actively pursuing CI as a BAU activity or cost avoidance culture.
- PI advisors are spread too thinly to penetrate to the level required at present resource levels and role expectations.
- We need to differentiate ourselves in three specific ways:
 - Cost, engagement and innovation.
 - Standardisation.
 - Effective deployment.

A common theme within the respondent views was the need to lead from the top of the organisation with clear, tangible evidence of support. CI implementation is both important and relevant for DP DHL in order to compete effectively in the global 3PL market. They have pockets of good practice however these are not communicated or shared effectively, leading to a position whereby missed opportunities to share best practice are evident.

Minimum standards are an area requiring attention and this sits within the DP DHL 2020 Strategy namely Focus, Connect and Grow. The movement of senior positions over the last two years was identified as having a detrimental impact to moving the CI agenda forward as responsibilities to lead programs had changed without the opportunity to see them through. FCW initiatives, whilst becoming more successful and better recognised over the last two years, remain less understood than leadership believe; the ability to affect this position remains a key output of the DP DHL CI agenda and alludes to the initial point made that leadership support from above is critical to success.

It is apparent that we are not fully utilising the capabilities within our employees' 'bank' of skills and experiences, these areas identified as weaknesses within our present colleague development capabilities. R10 felt that when we do PI / CAPA workshops we have a great opportunity to tap into people: "*we should be the best 3PL by a country mile*". The use of agency resource was repeatedly noted as an area to better understand as if we are to engage with our shop-floor colleagues we must also do this with our agency colleagues; indeed in some areas of the business agency labour forms the majority of the workforce.

There was an acknowledgement across the interview population that we are task-focused and this leads to a position whereby we are target-driven against suites of KPI's deemed to be for corporate reporting requirements, not value adding. R7 offered an opinion in that: "*is target setting the right way of doing it? Ultimately no, however it instils a certain level of behaviour*". The strength of opinion suggested that continually setting targets for CI / PI is driving the quantity of initiatives, not the quality or cultural change DP DHL are looking for.

By example; the CAPA process should be used as a tactical tool to solve short-term issues at the point where they occur, however it was evidenced that due to the target driven culture coming out of corporate it is being used inappropriately to hit numbers. R9 commented that: "*we need to measure it [CI / PI initiatives] to know where we are to*

improve it and make it part of our DNA of leadership". The idea should be to gain momentum through targets and then allow the process to sustain locally, providing an indicator of the level of BAU expectation achieved.

Communications between customers, the organisation and its colleagues is an area to hone in on with evidence indicating that the cascading of key customer survey results is neither focused nor distributed to a standard commensurate with best in class organisations. An example offered the point that 60% of planned recipients did not know the results of the most recent survey; this would suggest they had little opportunity to affect any customer concerns. Financially we have made great progress as a business looking to deliver in the region of £20m of benefit for Retail customers in 2014; however this is not reflected in their understanding of what we deliver against CI expectations presenting itself as an opportunity for improvement.

The pressure driven by margins was noted by several of the respondents with *'wafer thin'* margins causing enthusiasm for improvements to lag behind a desire for immediate cost reductions by customers. In essence customer behaviour is driving ours in the wrong direction and changing this behaviour is fundamental if we are to drive the CI agenda forward. R10 submitted that we need to know what the customer wants: *"to become the catalyst for process improvement, because you are asking what they want and then delivering on it"*. We need to decide as an organisation where a CI, cost improvement and colleague engagement culture sits against the continuation of a cost avoidance approach to business based on continuing headcount reduction or similar cost out initiatives.

GM's were identified as a key population to engage with CI implementation and a higher proportion have accepted this and are now working within the CI agenda. It is necessary to provide them with an understanding of what the expectation is to ensure consistency in approach. This has improved over recent times, however there is work to do for cultural change to truly take place with R7 suggesting that we are: *"still far from cracking it really"*. The organisation has to fully support the culture change if it is to be realised.

The spread of PI support from senior advisors caused concern for respondents in that geographical vs. business unit spread was working against being effective. Typical examples offered included three businesses from different sectors in the same location that had not taken the opportunity to meet up and discuss any potential best practice sharing opportunities. Senior PI advisors were felt to be spending too much time on

the road and not enough time at sites whilst the split for some senior PI advisors gave one approximately 10 sites to manage, whilst another was responsible for over 100, clearly indicating a mismatch between resource availability and allocation.

A number of corporate programs were identified, seen as beneficial in driving the CI implementation process forward; these fall within the DP DHL FCW umbrella and include; Performance Dialogues (PD), Operations Maturity Model (OMM), Gemba Walks and Certified Supply Chain Specialist (CSCS) programs. The over-riding message coming through was that consistent use of corporate tools within our FCW approach to drive engagement and business improvements is necessary. Resource allocation is recognised to be the main enabler to initiatives being rolled out effectively; however by example the OMM program would take a period of years to reach all sites due to the high number of sites and limited resource level currently available.

From a reflective perspective: “*Are DP DHL an organisation that has successfully implemented CI / PI processes*” resulted in the following headline points. This question was one of only two where a desired output included a quantitative measure to support the qualitative responses with the results indicated below:

- Perception of CI / PI implementation is not as positive as it should be.
- Targets sent down from corporate with no latitude to discuss or influence at sites does not drive engagement with colleagues / managers affected by them.
- Explicit measurement of CI success through targets is not driving colleague engagement, quality of CI implementation or cultural change.
- The elements of task vs. colleague engagement need to be understood. FLM's need to understand their role is about motivating their teams not just managing processes.
- DP DHL needs to engage the General Manager (GM) population further to enable them to appreciate that successful CI implementation would actively support delivery of challenging budgetary targets.
- Customers drive our behaviour too often.
 - We have to work with them on changing this so we drive the CI agenda to them to see the positives CI can provide.
 - Weak margins are causing short-term thinking; CI culture not evident.
 - We chase the next quarter results, often at any cost.

- First Choice initiatives are more successful and better recognised over the last two years, however the message is still not landing at all levels in the organisation and needs leadership sponsorship to change this.
- When we get a group of colleagues together with a common goal we can do a great job with CI opportunities. Need to identify this and spread the word.
- The use of corporate initiatives; PD's, CSCS, OMM and Gemba to drive engagement and business improvements is positive; however resource allocation is a concern to reach out to all sites in a timely manner to achieve and maintain momentum.

The quantitative score for DP DHL's ability to successfully implement CI / PI processes ranged from a low of 2-3 to a high of 7 out of a possible 10. The average score was 5.1 which suggests we have work to do in improving our CI implementation processes. The fact that numerous opportunities to improve are known to the interviewed population suggest that this can change for the better; however in the areas identified it will be necessary to find out why they have not been able to effect change and what has to happen to enable this.

8.2.1. Organisational Learning and CI - Symbiotic Relationship

One objective of the research was to understand the potential for a symbiotic relationship between Organisational Learning (OL) and CI / PI implementation. This relationship being identified within published works as an enabler for implementation programs (Boer et al., 2000). The questions in this section were designed to test whether or not colleagues identify with DP DHL '*the organisation*' and feel that they belong to it. The expectation from the interviewer was to understand how strong this bond may or may not be, including the level of EI competency of managers and how management approach employee engagement.

It was felt that many colleagues who work on customers sites do not identify with DP DHL and in some instances do not understand that their employer actually is DP DHL. They believe the customer is their employer due to strong customer branding. Simple issues such as work wear indicating customer rather than DP DHL name and a lack of appreciation by local management that DP DHL branding and relationship with colleagues is not distinguishable from that of the customer are evident.

Corporately we support our Strategy 2015 and 2020 programs in a positive and professional manner. R9 described the ethos of Strategy 2020 as: “*very clearly moving towards much higher levels of colleague engagement, central to what we will do over next few years*”. Evidence from respondents suggests this is not always how we treat our colleagues at site level and display a ‘*tell*’ more than ‘*ask*’ approach in how we go about our business. This can lead to lack of engagement, or sporadic buy-in leading to passive and active colleague engagement dependant on local conditions. Learning quality, including training, shows a wide variance and can be driven by customer or DP DHL management approach. In closed book contracts the pressure to make a profit may detract from the requirement to train and engage with colleagues accordingly.

With regards to colleagues identifying with the organisation the responses were average at best across recipients, in an attempt to capture the differing perspectives a summarised record was produced:

- Colleagues’ identity to DP DHL not evident; some colleagues think they work for the customer (R3 and R8).
- At many customer sites DP DHL branding is actively discouraged; therefore no identity link for colleagues; there is no ‘*DP DHL feeling*’ (R6, R8 and R9).
- We are not clear around giving people pride in their business, sometimes that’s because colleagues feel more aligned to the customer (R2, R6, R8 and R9).
- In closed book every time you do something you are costing yourself money. It takes a certain level of manager to see that CI is not a cost (R4).
- Employees Opinion Survey (EOS) survey tells us we have work to do in the area of OL (R2, R4 and R8).
- FLM’s role fundamental to affecting OL positively (R4, R5, R8, R9 and R10).
- FLM’s should know their colleagues names; they should know what individuals do outside of work. You can find next level of improvement through this level of engagement with colleagues (R4 and R9).
- Management teams are not engaging enough with shop-floor colleagues (R2).
- You have to give feedback, even if bad news, it is how you deliver it, (R1 and R5).
- At many sites a large percentage of the population are temporary agency staff. They have little opportunity to identify with DP DHL as they may be there for only a few days before moving to another contract. This also affects core staff, (R6 and R8).

- We need people to feel part of the organisation. Are we talking ‘at’ or ‘to’ our colleagues? We should be engaging with them for their ideas / experiences, (R8).
- Live example shared indicating a lack of previous engagement with colleagues; management team with 100 years’ experience never been asked opinion or invited to PI workshop. Following workshop a significant reduction in baseline issues was achieved (R1).

Commensalism was briefly discussed; this is a class of relationship between two organisms where one benefits without affecting the other positively. The view across a number of recipients was that we have displayed elements of commensalism in our approach; however we are improving the ways in which we recognise, acknowledge and celebrate colleagues’ successes. Trust associated with behaviours between colleagues and managers is fundamental and is elaborated on in due course.

R2 and R7 noted that an ‘*Ideas Management*’ approach had been tried in different sites to provide opportunities for mutual benefits. It was implemented in Germany and was positive initially, then tried in another location, however ultimately both programs failed. R3 shared an idea generating program they utilise whereby colleagues fill out a simple ‘*What If*’ form. This is generally good, however process owners who do not respond to colleagues in a timely manner can impact the positive engagement this initiative can drive and response timing is tracked accordingly to mitigate the potential for this to occur.

The question as to whether DP DHL understands the importance of OL was more positive in that a number of respondents felt there was progress in this area including a strong ‘yes’ from R3 with R5 noting the influence of PD’s in this area. R5 and R7 identified EOS as one medium for senior management to understand where we are as a number of the questions target employees feeling about the organisation.

R8 had strong belief in the organisations view on OL, citing the effective use of CAPA’s to deliver positive outcomes in their experience, which had been implemented by the organisation. R1 considered the point that we need to understand where we are on CI / PI maturity curve adding that you can’t force cultural change: “*we do not have an embedded approach*”.

Certified Supply Chain Specialist (CSCS) is a new DHL Supply Chain initiative that will drive colleague engagement with the organisation, and this was seen as a positive

move by R7, R9 and R10 particularly. Elements of an Appreciative Inquiry (AI) approach are evident in how the CSCS project could be implemented successfully; this will be developed as a theme within the recommendations.

The Emotional intelligence (EI) of managers was examined in an attempt to understand how they influence colleagues' expectations when related to engagement and the work environment. The consensus of FLM's was that there is a need to up-skill them to develop their '*emotional competency*' with an over-riding theme suggesting opportunities had been minimal in the majority of cases. R3 identified that the personality of those we work with at local level can make a difference: "*it's about knowing people*" concurred by R7. R6 added that who you are working with could make a big difference to the outcome of interactions with the organisation; including customer influence, acknowledged by a number of respondents. It is interesting to note that in EOS the question relating to mistakes being used as learning opportunities does not score highly amongst colleagues. R7 felt that we do learn from our mistakes, noting however that we have to improve our ability to share the outcomes.

R10 stated that we don't develop the EI element of FLM's: "*we need to tap into people, not just task-orientated elements*". R6 went further posing the question: "*if people don't know about [their] EI level how can they fix it? We need to up-skill managers*". R5 commented that engaging with colleagues and listening to them is a true culture shift. FLM's haven't had a lot of development over a number of years and contain a large variance in skill levels. Promotion should be based on merit, attitude and skills that include EI, not simply time in the job.

The increased use of agency colleagues was raised as an area of concern by a number of respondents. We need to find a way to engage them in the DP DHL FCW approach. R8 picked up the issue that fluctuating volumes drive the need for agency colleagues stating:

"What identity have they got? They don't have any allegiance to DHL or the customer, trying to run an operation and implement CAPA and PI improvements with probably fifty percent of the workforce that are just there to do a job for the day".

Presently agency do not form part of the EOS population which means their one opportunity to formally submit their views of working with DP DHL is not recognised. This was captured by respondent R6 through the following comment:

“Temporary labour is used across the organisation, no direction in how to use them, no corporate steer...they are not included in EOS and have often worked for us two years or more. Customers place financial constraints on us that stop us taking on colleagues. Not fair and not equitable”.

R10 explained that we are working on the number of agencies used; historically we had a huge challenge due to the diversity of agency colleagues and number of agencies. Each site now has a preferred agency provider and we should talk to them to use the local agency team knowledge and work on relationship building as we haven't got it right yet.

Questioning whether we have passive or active colleagues in the CI implementation process triggered two distinct avenues of response. R2, R3, R4 and R7 thought that providing a positive structure, including training, supported buy-in and that once engaged colleagues will participate and frequently stay engaged after initial involvement. R5 felt we also have resistors, suggesting we can use their input positively. R1, R6, R8, R9 and R10 observed that colleagues are too passive, often led by subject matter experts. R4 added that colleagues are unlikely to offer ideas and need to receive CI training to embed the message.

R6 and R8 shared a view that no one comes to support them with learning or to ask what they need or discuss what is available to them for development. No one talks to the GM population regarding development needs; we should have a: *“how can I help you”* approach. R4's reflection on this was that we rely on too few people so CI can't be embedded. CI should be part of colleague induction programs if we want to take it from where it is to World Class status.

R9 and R10 discussed a *'Plan, Do, Review'* culture; we don't always analyse what went well and what didn't to root level and then change plans accordingly; we don't build corrective actions from root cause analysis into a plan. World Class Organisations have an embedded *'Plan, Do, Review'* culture model.

In summary, the key opportunities and barriers to developing a symbiotic relationship between organisational learning (OL) and CI / PI implementation within DP DHL suggests:

- Corporately we support Strategy 2015 and Strategy 2020 in a positive and professional manner and plan much higher levels of colleague engagement in the future.

- There is a distinct lack of belonging to DP DHL by our colleagues. This can be driven by customers and local management who do not support colleague engagement.
- The organisation does understand the importance of OL and is developing initiatives (CSCS) to improve engagement opportunities with colleagues.
- Localised management attitude may positively or negatively affect colleague engagement and thus cause sporadic support for implementation programs.
- We need to understand what EI deliverables are at FLM level particularly.
- EI levels within management teams are an area to focus on to improve colleague engagement processes.
- We need to understand our agency population and find better ways to engage with them. Minimal evidence of this taking place. Agency are increasing in percentage terms and we need to maximise their input for mutual success.
- Use of employees existing skills and experiences, be that recreational or direct work related needs to improve. We have a huge amount of tacit and explicit knowledge in our employees. Need to improve use of this. FLM's role key part of this expectation.
- Colleagues are presently too passive in the CI implementation process.
- When we do engage with colleagues, live examples tell us that it works, we need to do more.
- We are not supporting GM population adequately with learning and development programs. Passive role rather than actively going out and supporting them.
- Learning as an organisation indicates a level of positivity, however we need to embed a "*Plan, Do, Review*" culture to drive this to World Class levels.
- CI training needs to become part of colleague development programs for existing colleagues and induction of new colleagues when they join the organisation.

8.2.2. Understanding of Knowledge Management

In order to gain a view on how we support key elements of Knowledge Management (KM) it was important to understand how we interpret knowledge sharing, review who owns it, who it is for it and discuss where it sits against organisational priorities. Bognor and Bansal (2007) identified a link between OL and KM, providing a further area requiring investigation to understand the potential shortcomings in KM practices and how this relates to the OL capability of an organisation and business performance.

Two corporate information depositories, iShare and COIN, were identified by the majority of respondents as supporting formal KM of the organisation, however the lack of intuitive interaction R2, coupled with search engines that fail to return desired results leads to a situation whereby you need a link to the desired page of the portals to find what you are looking for. R8 felt COIN is difficult to use and finding out who can help you is problematic, it can be easier through networking with colleagues than using existing processes. This critique indicated inherent weaknesses in the current systems with R4, R5 and R7 advising that there is a plan to replace them in the foreseeable future with a new internet rather than intranet based system named LOGICS.

R2 indicated that we now have a senior manager who has taken on formal responsibility at corporate level to develop KM. This is in line with O'Dell et al. (1999) expectations indicating that leading organisations often have a formal '*knowledge champion*' in place. R3's view was that at corporate level there is almost too much information to find what you want on iShare; similar PowerPoint presentations of the same subject are available making it difficult to know which one is the right or preferred approach. R7 felt that we suffered from information overload commenting: "*how many of us see certain things come into e-mail, however with the amount of information we receive it is easy to lose it in a backlog of other communications we receive*".

R9 offered a simple analogy as to how we will approach knowledge sharing in the future:

"There are only so many solutions to a problem; we reinvent the wheel too many times, not efficient. We build bespoke solutions, we don't force solutions into a network...analogy is that we build a house with modular pieces such as bricks, tiles, roof joists, standard sizes, however it can look like you want it to. That is the way we are going with knowledge sharing".

Moving to the question of who owns KM provided a reflective opportunity for a number of respondents. R3 and R8 believed that we all own it, with R6 stating the onus is on ourselves to develop whilst realising that not all felt as strongly about it as they did. R4 believes there is a responsibility on all of us to be better at what we do at all levels, ensuring colleagues are better informed. Employees are the ultimate source of new knowledge in an organisation and they are responsible for their own knowledge development. Expecting people to take personal responsibility for their own KM is an example of a '*pull*' strategy, initiated by the individual rather than pushed by the organisation (O'Dell et al, 1999).

R8 made a valid point in that tacit and explicit knowledge in SWOP's and processes forms part of our KM processes. At mature sites tacit knowledge is very important, for example to help write operating models; when colleagues leave we can lose that knowledge unless it has been formally captured. R10 questioned whether or not we drive best practice in the use of our tacit and explicit knowledge.

Relating the importance of KM to the organisation revealed wide-spread opinion from: *"not high...at site level quite low priority...on someone's agenda"* to *"very high"* with R9 commenting: *"it is high in company priorities, one of the central building blocks for the next five years alongside staff engagement"*. O'Dell et al. (1999) indicate that organisations pursuing KM as a business strategy believe KM is central to their ability to grow and compete; knowledge is viewed as a tangible product with the principle that it will have a significant impact on the profitability and viability of the organisation.

R5 commented that the LOGICS solution will support labour management systems and warehousing management systems. So yes KM is a key area, a high priority. Where KM supports productivity improvements R10 raised the importance of fair and equitable measurement of capability, suggesting that without a consistent tool you can never get to an explicit position of measuring: *"apples and apples...the water will always be cloudy"*.

The difference in perspective on this question indicated the importance of KM to the organisation is not understood or recognised for what it is; this provides an opportunity to close this gap as we move forward. R4 believed that a positive KM culture is desirable; however we need a clear roadmap of how to get there. It is not about all being standard and sites can have their own approach; however there is evidence of a memory stick culture to KM sharing which doesn't drive cultural change.

In summary the key areas of KM are captured below:

- iShare and COIN are identified as two formal systems supporting knowledge management of the organisation
- The lack of intuitive interaction coupled with search engines that fail to return desired results leads to a situation whereby the use of links is the accepted method of use.
- The new LOGICS repository will bring a number of current systems together that will communicate across different elements providing an improved portal for information gathering and sharing.

- Whilst there is a lead role supporting KM at corporate level there is a lack of understanding as to the direction of KM.
- There is a responsibility placed upon individuals to develop '*their knowledge*'. How we support colleagues in achieving this not fully understood.
- Tacit / explicit knowledge in SWOP's and processes forms part of our KM processes. This '*knowledge*' must be captured or risk being lost.
- At mature sites tacit knowledge is very important; when colleagues leave the organisation we can lose that knowledge unless it has been formally captured.
- Strategy 2020 will support a high level of standardisation into our solutions and commercialisation in the way we run operations.
- The importance / relevance of KM to the organisation is not recognised or understood. This is an improvement opportunity.

8.2.3. Potential Interaction between CI / PI and Innovation.

With regards to CI impact on innovation the proposition that a CI culture gives rise to an innovation driven culture is of particular significance to the development of the relationship between CI and innovation for DP DHL. An innovative culture is crucial to the prospects of an organisations ability to continually develop new customer offerings and future strategic direction (Singh and Singh, 2013). Innovation is identified as a key element of the DP DHL offering to customers and the potential for CI to either support innovation through a natural progression from CI to innovation or by triggering a fundamental level innovative opportunity through a level of association were of interest to the thesis research. The term '*innovation*' may be misunderstood from the context of what defines innovation from a DP DHL perspective as opposed to the formal definition identified below by Hislop (2009, p. 114):

"The deliberate modification, or transformation, by an organisation of its products / services, processes or structures".

The initial question raised with the respondents was to test for association between CI and innovation. This provided a strong acknowledgement of a link from the majority of respondents with R1 and R2 providing an alternative perspective that it's about what we understand innovation to mean.

R9 identified a difference between CI / PI and innovation resource, suggesting that CI / PI opportunities are driven by those quite close to the processes. Innovation needs different people in the team to help to think innovatively, stating that this can

work with the same population if individuals with specialist skills participate as catalysts to support innovation development. Imai (1997); Boer et al. (1999) supported this view in that whilst some innovation activities require specialised knowledge, which can be bought in if required; the bulk of them can be addressed, to acceptable standards, with a high level of workforce participation and engagement.

R4 understood the value of innovation however they felt it should not be treated as the be all and end all: *"Value should be through discussions and become embedded; it doesn't always have to be a big bang, innovation with a small 'i' I think... it should be happening all over the place and we should be able to feel it...innovation with a big 'I' is a big opportunity"*. R3 and R5 thought that CI / PI and innovation were all tied together and innovation can come out of PI workshops and we should work closely on developing that.

R6 and R8 saw CI / PI as a route to improving something from X to Y, for example service, costs, waste reduction, 5's programs. They discussed two types of innovation from their perspective; old to new as in the journey from dot matrix to laser printing; seen as a CI approach, or totally new innovation of 3-D printing. In a similar vein, R2 and R6 commented that what is perceived as innovative in one part of the business may be considered *'old hat'* in another. For example, voice picking could be innovative in a business, although not a new product. R8 followed a similar thought process in that they saw step one of CI as an improvement to baseline; that is a bad situation, however it happens. Step two was identified as an improvement level, with step three being innovation driven by the logic that CI of existing processes is delivering diminishing returns, therefore innovation is required.

R4 felt innovation can come from *'left-field'* and too often CI comes from the negative elements of a failing process, hence not seen as a positive change. R3 recognised customer influence can hold innovation back dependant on their perspective and understanding of it. R3 went further suggesting trust is important, including the way you interact with customers and partners: *"if you withhold information from a business partner it will damage relationships"*.

Potential blockers to innovation were identified by R8; because innovation is new and sits outside of normal processes, procurement constraints can cause a barrier. Standardisation of processes can be another issue; people may be frightened of

working outside the normal expectation and be treated as maverick by others. R1 held a view regarding strategic thinking posing the question is it encouraged or discouraged: *"I feel we are not allowed to think strategically, if treated too sterile through standardisation it will take away the one thing that will unlock potential"*.

The potential for Strategy 2020 to hold back innovation through a standardised approach was subsequently tested with a number of respondents, returning a majority response that it supported minimal standards to achieve rather than stifling CI or innovation. R2 provided an example of a global customer perspective on the need for standardisation in DP DHL as they have multiple sites across the world, which have different operating models that confuse the customer. R7 felt that standardisation can be misunderstood, although certainly not the intention, and cited an example from Perry Watts (UK&I CEO) regarding BMW cars in that you need a bedrock, such as the three series platform [the standard], and then you can add to it with different variants.

Mentzer et al. (2001) suggests that it is accepted within literature that strong relationships between partners in a supply chain lead to a number of beneficial operational outcomes; including a reduction of inventory, transportation, ordering and warehousing / handling costs. R10 commented that with emergence of innovative technology; click and collect, home deliveries and shopper scanning systems the biggest challenge we have is keeping up with new technology; our customers need to look at how they can support the end customer expectations with their current systems. R10 offered an example whereby they brought a colleague in from a different part of the business to share their experiences of where the market for fashion was with their Retail customer, including where they should aspire to be and why, and the use of formal processes to support decisions.

If a compare / contrast approach is taken to CI / PI and innovation as noted by R2, it becomes central to understand how and when they should be implemented and R3 saw automation as an enabler of increased innovation through working with Original Equipment Manufacturers (OEM's) creating new solutions. R1 recognised operational innovation as providing product design / IT solutions and should be driven through a CI approach; DMAIC, Kaizen (small steps) and innovation (step changes).

The formal structure of innovation within DP DHL includes a VP, innovation workshop, innovation tools, innovation shed and *'In-House Consulting'* in Bonn. We also have the innovation centre in Bonn and a new one being developed in the Asia Pacific region. R5 suggested our alignment needs to better; developing the innovation shed

to a position whereby you can go on to the site and look for examples of best practice. R9 commented that: *"In a 'Customer4Life' situation an innovation workshop will take place to help the thinking"*. This drives the process for new ideas generation with our central initiatives team supporting best practice around sites.

R10's perspective was that if you look at CI and innovation they are very closely linked, with pure innovation defined as bringing out new products into somebody's world and innovation of best practice into our customers' industry. We don't publicise this enough when we have done that; we should play it back to the customer as innovation, confirming that we have been out there and found the best in the market and shared it with them.

Hislop (2009) pointed out that with the additional complexity of sharing tacit and context specific knowledge, the overall set of parameters for implementation of innovation becomes complex in nature, and thus requires the skill-set of the innovation leader to support these needs. R9 commented that life sciences are managed globally and this should encourage innovation within that business anywhere in the world. Likewise some of our central initiatives such as OMM and Quality Management Systems (QMS) should encourage and drive best practice.

In summary the potential for interaction between CI / PI and innovation returned a significant positive response with the notable points captured below:

- An innovative culture is crucial to the prospects of an organisations ability to continually develop new customer offerings and future strategic direction (Singh and Singh, 2013). This is recognised internally.
- The link between CI / PI and innovation is evident, how this is understood and used positively by wider audience needs further research to understand.
- Innovation through a natural progression from CI is apparent; understanding the approach for maximum benefit potential needs to be formulated.
- The journey from CI / PI to innovation can be summarised as:
 - CI approach to fix a process, small impact.
 - CI approach to improve a process, small-scale to mid-scale impact.
 - CI approach to support innovative technology and / or process solutions, larger-scale impact.
 - Innovation to provide cutting edge, blue sky thinking; often conceptual until commercially developed. High impact, distinct value proposition.

- Numerous tools are identified to support innovation including; innovation centres, workshops, tools, Innovation Shed and '*In-House Consulting*' in Bonn.
- DP DHL has an innovation centre in Bonn and a new one being developed in the Asia Pacific region.
- Colleagues with specialist skills can support innovation opportunities with existing CI / PI teams acting as catalysts to support innovative development.
- GM's have to be willing to embrace CI / PI and innovation at site level
- CI / PI and innovation can play a much bigger part in the organisation than they do presently. The message has to be proactively disseminated.
- We don't proactively share innovation with our customers.
- Trust is identified as a key component of innovation, particularly in relation to relationships with business partners and customers.
- Potential blockers to innovation must be identified and mitigated for the organisation to move forward. Senior management support may be necessary.
- Bringing innovation and innovative thinking from outside the business or sharing across divisions can provide mutual benefit for DP DHL and customers.

8.2.4. Incentivising Support for CI / PI and Innovation

This topic provided a dispersed range of views across the respondent population with noticeable differences on specifics such as financial compensation for ideas provided by colleagues that saved the business significant costs. There is a different approach in mainland Europe compared to the UK&I, notably in Germany and Holland where cash incentives are a recognised way to reward colleague ideas that are implemented, identified by R2. This approach bucked the general trends identified across respondents.

R4 felt the first question to answer is: "*Should we incentivise colleagues? Is it not part of your commitment when you took on your contract of employment? Should it not be expected that we want people to find a way to improve?*" R1 offered a simple message: "*the incentive for colleagues should be because they care. There should be a desire to support PI with professional integrity. It's the right thing to do to care*". There was an over-riding view that CI is seen as a managers' job not a colleagues; this perception has to change if we are to move forward. R10 saw this concern as an engagement opportunity and felt that an engaged workforce can be as efficient and productive as one that is incentivised. R3 agreed, adding that colleagues should want their jobs to be easier, concurred by R5.

R6 approached this from a different perspective: *“treat each colleague as an individual to motivate and find out what drives and rewards them”*, we don’t understand this yet and our EOS results tell us that. R8 questioned the relevance of some EOS questions that don’t make any sense to colleagues; we need to understand what is important to colleagues and not sure we are presently. If real value is the required output we need to ask different questions; maybe two levels of questions for different colleague levels as it is evident that viewpoints are different.

R5 commented that there has been on-going discussion as to whether PI champions should receive an additional financial reward as part of their role or a percentage of savings achieved. At the moment the business is looking at the career path element to support driving the CI culture change rather than financial. R2 had a logical attitude to this from their perspective; if a colleague’s idea saved millions in cost why would you not want to financially reward the colleague with a small percentage financial reward. Without the idea the business would not have been able to take the savings identified.

R8 suggested that a GM should come up with a way to reward a colleague who came up with a substantial cost saving opportunity at their site. R6 offered examples of personalising a suite of awards; the incentive should match the individual. R1 brought this discussion to a close stating: *“the Holy Grail for CI is how to inspire colleagues and managers through recognition, genuine appreciation. It is important that they believe CI / PI will give them something back”*.

At this point within the interviews it was felt that a different approach might provide an opportunity for reflection by looking at what we should stop doing to incentivise colleague engagement rather than what we should start or continue. The proposition was to provide an opportunity to share ideas, thoughts or frustration from the varied roles and hierarchical positions within the population.

A common theme coming from this was that the GM population need more support to reduce the administrative elements of tasks they are required to complete. A fundamental issue is that there is a huge pull on GM time from different management groups requiring information in specific formats, schedules and detail. R7 commented that we need to share with customers that we have a ‘basket’ of KPI’s that we offer; we should: *“do the work once”* not repeatedly. R6 suggested that we need to stop pushing work down; a bottom up approach would be better. R9 added that many colleagues think they have the right to request a site GM’s time, there needs to be a more disciplined approach. GM’s should receive regular communications with key messages

so they can take account of any central initiatives that may affect their sites and then plan accordingly. This will hopefully release some time for GM's to coach others whilst being more visible on the shop-floor.

R4 believes that we are fixated by financial KPI's that affect our behaviour; they drive everything we do. R6 thought that time at conferences might be better spent looking at what people did do rather than what they didn't do, taking the time to find out why to support positivity and engagement. R3 suggested that rather than stop we should improve on management knowledge of the wider DP DHL world and culture as corporate strategies are still not understood by the vast majority of managers. R4 understood this commenting that we push a lot of information out, expecting people to read it: *"how much time was spent on Strategy 2015? Not enough"*.

In contrast, R7 recently had a group of senior managers together representing each business unit. When asked what we should stop, they didn't come up with anything. In a reciprocal approach R4 and R6 suggested the need for standardisation, stopping one-off solutions, adding that we need standardised ways of engaging with colleagues whilst taking local variances into account.

Incentivising colleagues to support CI / PI and Innovation provided an unexpected variation in opinion across the interviewee population with the salient points captured below:

- Cash incentives are a recognised way to reward colleague ideas in specific countries, however not generally accepted as driving true colleague engagement.
- There is a view that CI is a manager's job; not a colleagues, we all have a duty to change that perception through engagement.
- We have to ensure colleagues see the benefit of CI and that working smarter isn't about losing jobs or money; it's about doing things once and doing them correctly.
- The relevance of [some] EOS questions needs to be reviewed / understood. We are missing what is important to colleagues.
- If real value from EOS is required ask different questions, maybe two levels of questions for different colleague levels as it is evident that viewpoints are different.

- How we deliver corporate messages to colleagues and the need to repeat key messages needs further development, evident we are missing key groups of the wider population.
- Holy Grail for CI is how to inspire colleagues and managers through recognition and genuine appreciation.

8.2.5. Delivery of CI / PI Training

R2 and R5 discussed a large-scale engagement program of GM one-day awareness training events on Lean / PI (30 sessions) that has resulted in 90% improvement in activity and considerable savings to the business. Making sure that training events deliver value was also noted by R5 expanding on this by suggesting that it is not about immediate financial payback, however you have to be confident in what you can deliver and seeing that as a good challenge: *“you have to pay for your ticket”*.

Throughout the interview process parallels were seen in the areas thought to be important traits of those expected to deliver CI / PI training and support CI implementation programs. A detailed tabular form is provided within Chapter 9, Table 22, grouping the significant elements, with an overview summarised below:

Behaviour and approach of trainer:

- Display confidence in their understanding of the subject matter. Be competent.
- Understand the audience and engage with them. Make them feel part of CI.
- Understand what motivates people and hone into this.
- Adapt learning experience for the audience to drive engagement.
- EI, self-aware who can understand and work with resistance.
- EI - Have to be able to influence others and ensure that the audience is receptive, there is a skill to wining them over.

Delivery of message:

- Trainers have got to be leader's and believe in it themselves, if not colleagues will see though them.
- Facilitation skills evident, colleagues need to feel it is a safe environment.
- Keep away from using corporate terminology.
- We sometimes push colleagues into training. So they don't feel *'First Choice'*. Make sure audience feel involved.

- Talk the same language as those in the room, using simple terms to get the point across.
- Cultural understanding – Tailor to suit; split training between generic / abstract.
- Have to be open to suggestions and share, however if you have someone trying to undermine training you have to be firm.

Approach to learning:

- We need to ask more, rather than tell. Understand that colleagues are the ones doing the job; they are the ones we need to learn from as they know how the job should be done.
- Need to think about 10-20-70 split of training [learning] between classroom and on the job.
- If not correctly resourced on a case by case basis then best endeavours will result; this can work, but likely limited value.
- Trainers need to motivate those around them for a small improvement that would be better for all.
- Use of analogies / stories is a positive way to approach learning, most appreciate a good, positive story or anecdote.
- Make it a more personal experience, this can drive engagement.

The question relating to the need for a non-CI skill set to support the delivery and learning experience of colleagues with regards to CI implementation, received a positive response. Main areas identified were underpinning knowledge and experience coupled with softer skills (EI).

8.2.6. Trust

DP DHL operates to a philosophy known as '*Results and Respect*'. This forms the basis on how colleagues interact and work with the organisation. Trust is identified within published literature as an important factor for colleague and manager engagement and successful implementation programs. It is a necessary condition for cooperative behaviour between individuals, groups and organisations (Hansen, 2002; Jones and George, 1998).

Newell and Swan (2000) identify companion trust which refers to trust that is based on judgments of goodwill or personal friendships. The trust rests on a moral foundation that others will behave in a way that does not harm other members of the network. R2

felt that this type of behaviour isn't always displayed commenting that: *"a lot of people are in it for themselves...we need to work on trust between different groups"*. R5 commented that trust is so important and it can be lost through easily avoidable circumstances in how we behave with colleagues. When managers don't follow through in their actions they will lose that colleague's trust, possibly for good. *"You have to do what you said you were going to do"* (R8). R3 added that we don't always come through for our colleagues; personal effectiveness will improve the position and you have to deliver on your obligations.

R7's perspective was that trust is largely positive; however they did note that in re-organisations and change people are fearful of outcomes, this can put trust at risk and makes it vulnerable. R6 acknowledged that we are in tough times, lots of business transformations are taking place; fundamentally it is about reducing headcount. R6 went further, suggesting that if CI is used to reduce heads it will only work once; we have a level of trust until we get it wrong. R1 suggested that trust can mean professional management and is personally driven: *"You have to develop relationships with colleagues and gain trust...colleagues trust in the person...it doesn't matter about tools or expectation"*.

In relation to managers R9 shared 2014 EOS results in relation to trust commenting that the third highest scores related to trust between co-workers; however in the bottom five scores were *'my direct supervisor takes an interest in me'*. This is clearly an area of concern. R5 added that the organisation is looking to address trust through EOS scores and takes them very seriously, expressing a view that DP DHL had changed for the better over the years.

The FLM's role in developing trust was identified as critical by a number of respondents with R4 suggesting: *"it is massively important, without it we cannot move forward"*. R10 reasoned that trust should be evident at all levels within the organisation: *"trust should go without saying"*. At FLM management level it is the most critical role as they have the greatest opportunity to interact with colleagues. R9 suggested that if FLM's haven't got a relationship based on trust with colleagues they should develop this over time maybe by asking their colleagues if there is something they want to talk about or share.

R7 commented when a colleague is promoted to FLM position and colleagues trust them, they will crawl over broken glass for them, or where trust is lacking the other extreme will prevail. This view was supported by R8 who suggested it's all about personalities stating that some managers struggle with the concept of managing

people; colleagues who have been stepped up to FLM's can be dictatorial so it comes down to people traits as a person. R8 added that getting to know colleagues individually makes you more approachable: "*A two minute chat breaks the ice and suddenly they become approachable and trust you*".

With regards to the more senior management population, mixed views were evident. R8 suggested that GM's and shift managers don't have, or make the time, to build up relationships with colleagues. Being seen is important as colleagues can't respect or trust you if you're not seen on the shop-floor. R9 believed there are mixed levels of sharing in the GM population, evidencing the '*not invented here*' scenario, however not as frequent as previously. We have more of a bottom-up and top-down approach; bottom-up is from shop-floor, top-down is large-scale programs like OMM and GM's have to embrace these programs. PD's are a key support tool, they give day to day task ownership to the shop-floor.

8.2.7. Organisational support to CI Implementation

From the literature review it was evident that organisations have a fundamental part to play in how implementation programs transpire. A review of the respondent thoughts as to how organisations are required to support CI implementation is captured (see Table 20).

Up until this stage of the discussions the onus has been very much on understanding how an individual's behaviours within the organisation can affect the success of CI / PI implementation programs. Wenger and Snyder (2000) suggest that complex implementation programs need considerable adaptation before they are truly integrated within the routines and rituals of the implementing organisation.

Barley (1986) has shown how identical systems can be implemented very differently by organisations, dependant on their existing routines, personalities and hierarchies. The table provides a clear understanding of colleague expectations placed upon the organisation. This information will be reviewed within the conclusions and recommendations.

Organisational support to CI / PI implementation
<p>Potential career path leading on from CI role; encourage people to become involved.</p> <p>Build PI skill set into the GM expectation.</p> <p>CI Practitioners trained / supported to bronze level would be an expectation.</p> <p>Develop training plans to help managers learn new skills / behaviours.</p> <p>Provide mentoring service for colleagues involved with CI.</p> <p>Empowerment of colleagues to make decisions.</p> <p>Dedicated CI role. Same format and resource at all sites to drive consistency.</p> <p>Colleagues need to feel able to ask the organisation for help when they need it.</p> <p>Have the right resource available to talk about issues (tangible support).</p> <p>Organisation has to lead the program, with clear vision.</p> <p>Ensure tools and techniques available. Develop tangible / objective metrics.</p> <p>Improve knowledge sharing and communications.</p> <p>Never undermine an individual colleague who is delivering a brief / training as this could affect their on-going career.</p> <p>Colleagues time made available or allowed to manage their own time to be effective.</p>

Table 20 - Organisational support to CI Implementation (Author's Own, 2014).

8.2.8. Appreciative Inquiry

From the initial review of published works it was felt that AI may be a fundamental, potentially untapped area of research that may support DP DHL positively in the pursuit of successful CI Implementation programs. This supported the inclusion of AI into the questioning process and the results indicated that it could provide significant opportunities to DP DHL if the understanding and use of AI were to be developed.

To the question of: '*What do you know of an Appreciative Inquiry (AI) approach to implementation / issues resolution?*' the majority of respondents answered that the term was not known to them. The essence of AI was shared with them, describing the positive elements of the process, leading to a clearer identification of AI expectations for the interviewee population and their thoughts are captured below.

R9 identified with AI representing one of only three respondents with previous knowledge of the concept. They made the link between trust and AI, commenting that you have to be prepared to share accountability and let go of some of the controls. It is hard for those brought up through traditional structured leadership routes to do this.

The role of FLM's and potential AI opportunities were discussed leading to a conclusion that FLM's have to make the most of the potential of the people they have responsibility for, acknowledging that this was culturally difficult to make happen.

R2 saw AI fitting with innovation if it is approached in the right manner and R1 added that we need to use it much more than now, including the positivity from '*What If?*' programs where possible. R8 shared their opinion in that our [DP DHL] glass is half empty at times, rather than half full, adding that the *Global Metrics* approach is not as positive as it could be, and for some [management] nothing is ever enough. R7 concurred suggesting: "*We probably don't give the impression of being an optimistic organisation*". R3 evidenced that we speak to colleagues for negative issues rather than positive; coaching and positivity are needed to build confidence.

R5 brought a behavioural concern to the AI discussion in that there can be a problem when you have gone so far down a path that is not going well. There is a tendency to keep going, even when we know it is wrong; we tend to flood problems with labour, forcing a fix and losing a lot of money. R5 added that a new site start up procedure is currently in development and this will definitely change that for the better. R2 and R5 offered a view that '*fire-fighting*' and being in the '*muck and bullets*' sorting problems out is still seen as a positive rather than as a negative. R5 added that customers accept this type of situation more out of relief than anything else when we manage to get their orders out: "*they are still not happy with us, just relieved*".

Developing the AI conversation with R2 led to a position whereby they referenced an example of a senior colleague in the specialist services business who used a similar approach to AI to support the development and growth of their specialist services business at a seminar R2 attended; it was a very positive, engaging experience. What was compelling was the vision, it was about all the good work happening across the specialist services account, talking to colleagues about growing the business.

This was in the form of personal interaction of the manager leading the business who attended all sites to communicate the positive message; including incredibly positive, aspirational videos about all the good work across their accounts; the voice of the customer (VoC) and the use of technology and innovation. It was about how they engaged them; site managers, GM's and other colleagues, all about vision, engagement, this is where they are going to be, how they all fitted in with the structure. There was also a workshop session to review their feedback and engagement with the vision. They were all definitely engaged.

Looking at how to implement AI R10 identified with the need to get the right people in the room; to talk about issues: *“conversation is all about colleagues”*. When you have got an AI group together you can generate opinion from them all, lots of views, opinion and passion towards it [collaboration]. R10 offered an example of where he had brought a team together: *“it felt like those people wanted to be there”*. If not they will become unengaged, uncommunicative and body language will be evident. R2 felt that from a leadership perspective we *‘shuffle the pack’* instead of bringing external colleagues into the business to revive it with fresh ideas. In their example above the senior manager leading the special services business had taken the step to bring in talent from outside the organisation to lead sectors of the business successfully.

Bringing the AI discussion to a close led to a review of potential blockers. R8 was adamant that DP DHL don’t want to lose heads; the impression they have is that the value in CAPA’s and PI is that we make it better, not by getting rid of people, not by reducing headcount, we have to make sure that message is understood. R5 thought we could apply a positive approach, however occasionally unrealistically. We should be brave enough to walk away from business sometimes because at that time competitors just happen to be in a better place than we are; we can overpromise and not deliver.

We need to look at our leadership approach; including vision, engagement and *‘fit of people’* noted as key elements. R8 added that we need to portray an AI attitude, from above: *“if we don’t we can drive fear and make people frightened to do things”*. They evidenced a level of frustration in First Choice champions who don’t lead; they have to drive positive elements, shout loud and drive the focus.

R6 took a strong stance in that as an operator they spend a lot of time fixing issues, believing the organisation lets them down at times:

“We don’t get things done that are important to colleagues. We expect colleagues to bring issues to our attention and then we have constraints of customer [financial] for example, so we don’t follow through and then expect the colleague to share again, why would they? We have to get GM’s to action and deliver results for colleagues”.

R10 was aware that if you try and force people into an AI group it won’t work, you don’t put people in the group who don’t want to be part of it. R4 recognised the importance of winning hearts and minds picking up on a need to understand where the balance is between a hard and soft approach asking: *“how would you know were the balance is?”* R7 shared his understanding of the *‘head, heart and guts’*

approach of Frank Appel, stating you need a combination of all three, being able to play a different element when needed. They suggested that organisationally we concentrate on the '*head*' element as an organisation, focused and results driven. Whereas the heart bit is probably more about EI: "*maybe we are slightly imbalanced*".

R4 noted the lack of formal training and lack of structured approach; there will be examples up and down the country but we won't know about them. There will be inspirational people in the business, lots of pockets of that, however we can stifle the effects. Too often when things don't go well we don't value the learning process, why would it always go right? To DP DHL the outcome is far more important than the value of doing something different as we are risk averse.

Decisions are driven by perceived value vs. risk as we need to '*cover this off*' just in case it goes wrong. In China people give new ideas a go and this is celebrated. R4 gave an example of the approach of the Chinese Olympic diving team to new diving techniques, they don't always work but that's not the issue, it's the willingness to try something new.

R7 felt that although we are selling the messages of Strategy 2020 it still doesn't make it any more comfortable when it is happening. We are in a washing machine of constant change; it doesn't necessarily help in terms of an AI approach. R9 suggested that when things are going wrong people revert to what they know. Customers don't talk about innovation or business development when the base service level is not right: "*first thing to go will be things that don't feel urgent*".

8.2.9. What does CI mean to you?

As part of the closing question a quantitative output was requested from the interviewees targeting their individual opinion of the importance of CI to the DP DHL organisation; it was noted that a number offered a secondary measure of how important it was to them and these results were duly noted and are recorded below.

R10 detailed their perspective on CI with a business example. When you are at the start point of a contract you should have a goal and a vision and a future strategy of where you want to get to. In order to get there you need to continuously improve, if you do get there you will retain business and you will win new business. If you have made no improvements, then you won't get an automatic renewal. We need to work on the

quality of what we deliver not the quantity to the customer adding from their perspective that in life generally we all look to improve and the only way to do that is to think about how you are going to get there. It helps support the drive for new business opportunities but is not culturally embedded yet, when it is it will drive growth, R6. R2 concluded that we need to have “*joined up dots*” between DP DHL and customers.

For R8, CI means keeping ahead of the game, it’s about getting to the point where you are ahead. It’s not just a cost or cost saving, it should improve efficiency of a process so there is little requirement for manual intervention and it is very reliable. R1 commented that CI is about improving all we do, it’s about embedding improvements and the FCW assessment process supports that.

R9 would like it to be the way we lead, where the majority of people feel they can be involved in and therefore make a difference to their place of work; their customer; their colleagues; their business and feel proud to want to do it. R6 saw it as the best way to improve our operations identifying that CI should make our A to B journey better.

R4 used the rationale of dovetailing CI into our business Strategy 2020; don’t stifle the population and use storytelling, case studies and examples as effective ways to get messages across. R2 noted that we have 65,000 brains within Supply Chain and we need to empower colleagues and make their roles more interesting through CI. We need to work on our approach and be able to move colleagues around more to generate interest including multiple skills and roles. R3 and R7 described the expectation that CI means doing something tomorrow better than today. Apply to everything, drive forward and don’t accept the status quo.

R5 reflected that CI changed a lot for them over the last two years having lived and breathed it: “*the value of CI for the last two years has really brought it home to me, a continuous journey*”. R4 felt that deep down it’s what we do, identifying that we have a lot of work to do before it is fully engaged. R6 believes in the value of CI, adding that implementation is about cultural change; we don’t have a CI culture yet and need to agree whether we are or are not striving for that [CI culture]. It’s about aspirations; however we aren’t living them yet.

R4 went further with the powerful statement that CI is underutilised; therefore so are our people [underutilised} and CI could provide massive benefits. People like to resolve issues when they believe in them, R2. R5 speculated that is about cultural

change; every manager and colleague should feel they can make a difference and become involved in how their operation works.

R5 and R7 believe there are opportunities in functions; in central functions we now have PI within them and one of our senior PI advisor's has done work with finance: *"it is getting there but there are more opportunities to develop"* R7. Functions are not where they need to be, however resource is an issue and we still have lots to do in operational areas.

R3 saw communications as a key element for CI to succeed by providing a consistent message through our communications channels. They proffered a similar message for the use of CI tools; use the tool kit consistently as it is not obvious there is a consistent approach. R2 supported this view in the use of Kaizen events as a positive engagement process, adding PI / CI needs to be better understood within the organisation so we all understand our role in the organisation. R4 sees the business-wide opportunities of applying CI, taking into account business change commenting that we use CI processes without realising. R9 would like CI to become synonymous with [DHL] Supply Chain whereby our customers know more about CI. They suggested that we don't brand it particularly well, offering the example of Unipart who do a good job with marketing their CI program *'The Unipart Way'*.

R8 felt that we need to focus on CI, however business results are still more important than CI from what they see. The business needs to classify what it wants from CI, a view concurred by numerous respondents. R5 evidenced an issue with our tendency to move on, not thinking about how to support new colleagues, and we can leave them behind. R2 added that colleagues need to be trained and managed properly to be successful with CI / PI and like to resolve issues when they believe in them.

The quantitative score for importance of CI to the DP DHL organisation ranged from a low of 5/6 to a high of 10. The average score was 7.65 which suggests that the importance of CI is recognised, however not to the level that it predominates other elements of the business. The score offered by a number for respondents for importance to them was a straight 10 in all cases suggesting the motivation within the interview population for CI to succeed is compelling.

8.3. SUMMARY

The rationale for the research methodology chosen was summarised within the introduction to the chapter, with the questioning process intended to provide a coherent pathway to capture the thoughts of a varied background, professional body of DP DHL colleagues working in roles that directly or indirectly touched the essence of '*Why CI?*'

This included the numerous facets from defined tools, such as CAPA and DMAIC, to corporate programs such as PD's, CSCS, OMM and Gemba Walks, moving to the behavioural elements of the individual and organisation. These included areas such as how we manage our approach to OL, KM, cultural awareness, EI, AI, the key element of trust and skill-set of those directly involved in supporting CI implementation.

Semi-structured interviews were the chosen research method to gain primary data for the study. The respondents formed a purposive group by design, with theoretical saturation determining the sample size. The questioning process followed a set number of questions with subsets of questions, based upon the literature review as the primary influence with the researcher's experiences and exposure to CI supporting the formulation of the questions to be shared with the interviewees. The decision was taken to use a time horizon of cross-sectional data gathered over a short period of time providing a consistent response, taking into account that this did not provide the opportunity for a chronological flow of responses to develop.

The methods chosen were felt to be robust, evidenced by the comprehensive, rich content of information provided by the interviews, based on the experience and professionalism of the individuals taking part from within DP DHL. Outcomes derived from the semi-structured interviews analysis are discussed within the conclusions and recommendations chapter.

CHAPTER NINE – CONCLUSIONS AND RECOMMENDATIONS

9.1. INTRODUCTION

If this thesis related to many other fields, the expectation would have been to challenge; what was right (in-line with the theory); what was wrong (against the theory); what correlated with the theory; what conflicted with the theory; what was learnt and what should be done better next time. The implementation of Continuous Improvement (CI) does not lend itself to this critique in a straightforward manner as it is interwoven with many complex areas identified through the literature review. When the additional complexity of an organisation the size and scope of DP DHL is added into the frame of reference, the outcomes were likely to be complex in nature, high in number and based on a large amount of empirical data and semi-structured interview outputs.

Whilst the thesis was in the latter stages of development the area previously known as Europe, Middle East and Africa (EMEA) for DP DHL was separated into different business sectors; thus the original objectives that related to EMEA are referred to the UK and Ireland (UK&I) as a natural fit with the newly developed business region.

The findings of the thesis provided conclusions and recommendations that were conceived from a blend of explicit and tacit knowledge derived from empirical data and semi-structured interviews of DP DHL colleagues. These were integrated with the researcher's background of working with CI over an extended period of time, providing the depth of understanding required to confidently discuss the opportunities relating to CI implementation. The direction of the thesis, rather than detailing the tool and technique elements of CI implementation focused on the wider-ranging behavioural elements between individuals and organisations in relation to implementing a CI culture. These included; Organisational Learning; Organisational Frames of Reference; Learning Organisations; Culture; Emotional Intelligence and Appreciative Inquiry, with Knowledge Management, Innovation and Trust becoming additional topic areas of interest as the research progressed.

The objectives of the study were based upon a logical step-by-step approach to CI implementation following a path identifying; present best practice for CI implementation, how to apply said best practice, the potential for a symbiotic relationship between CI and OL, leading to objectives four and five which were to

develop a 'pack' for CI implementation and then deliver this through development of a blended, task, cultural and EI based skill-set for CI implementation managers.

Objectives	Supporting literature	Contribution	Detail
1) Understand what constitutes a successful CI implementation. 2) Design a formal process to support implementation of CI that can be adapted to suit localised differences.	Ch. 2.3 OL, pp. 35-48. Ch. 2.5 LO, pp. 53-57. Ch. 2.8 Trust, pp. 64-67. Ch. 2.9 Culture, pp. 67-69. Ch. 2.10 Cultural Models, pp. 69-81. Ch. 2.11 EI, pp. 82-90. Ch. 2.12 AI, pp. 90-97.	<ul style="list-style-type: none"> The combination of a skill-set based upon a blend of task and people [culture] orientation is required to support the implementation of a CI culture. Task only approach not sustainable. The use of an AI approach to engagement when linked to corporate goals [CI] is identified as potential for fundamental differentiation. 	Ch. 9.7.4/5, pp. 252-255. Ch. 9.7.4, pp. 252-253.
3) Interrogate the depth of the proposed symbiotic relationship between OL and CI, and apply the outcome of this to support improvements of implementation practices.	Ch. 2.3 OL, pp. 35-48. Ch. 2.4 OFOR, pp. 49-53. Ch. 2.5 LO, pp. 53-57. Ch. 2.6 KM, pp.57-62. Ch. 8.0 Interview results, pp. 208-232.	<ul style="list-style-type: none"> Links between OL and successful implementation of CI are proven. DP DHL have the opportunity to increase colleague engagement through having an OL approach. Increased quality of learning facilitates an OL approach in colleague / organisational relationships. Synergy between OL, CI and KM is identified. This can support achievement of organisational goals. 	Ch. 2.3, pp. 35-36. Ch. 9.3, p. 238. Ch. 9.8.6, pp. 263-264. Ch. 9.3, p. 238. Ch. 2.6, p. 61. Ch. 9.3, pp. 238-239.
4) Development of a Continuous Improvement Implementation pack. Pilot process audit outcomes, and review prior to wider roll-out.	Ch. 2.12 AI, pp. 90-97. Ch. 8.0 Interview results, pp. 201-232.	<ul style="list-style-type: none"> Through scope change - understanding CSCS program for DPDHL. Potential is evident to integrate CSCS program with use AI / CI to improve colleague CI engagement. 	Ch. 9.5.5, pp. 244-246. Ch. 9.3, pp. 238-239.
5) Develop a competency framework for CI implementation managers as a precursor to involvement in CI implementation programs.	Ch. 2.3 OL, pp. 35-48. Ch. 2.5 LO, pp. 53-57. Ch. 2.8 Trust, pp. 64-67. Ch. 2.11 EI, pp. 82-90. Ch. 2.12 AI, pp. 90-97. Ch. 8.0 Interview results, pp. 201-232.	<ul style="list-style-type: none"> Compare / contrast of skills completed. Table 22 identifies proposed skill-set. Task elements necessary, however EI and behavioural supports culture change. Academic skills should not differentiate positively for CI implementation skill-set. DP DHL actively search for an external, accredited body for CI practitioners and set up a framework of competency requirements. 	Ch. 9.7.5, p. 254 Ch. 2.13, pp. 99-100. Ch. 9.7.5, pp. 253-255.

Table 21 - Overview of Contribution to Objectives (Author's Own, 2014).

Through an appraisal of the literature and the semi-structured interview processes empirical data is provided in a tabulated form (see Table 21) with supportive commentary to provide a concise record of contributions aligned to the objectives. It is discussed that not all the objectives were achieved as prescribed.

There are a number of theoretical and practical contributions which have been generated from this research, with the primary contribution being the creation of a CI Implementation Model detailed within Chapter 7. Whilst DP DHL are recognised as the target organisation for a number of the contributions, they may be of value to the wider external CI community dependant on their level of maturity in regards to implementation of a CI culture and openness to change.

Limitations of the research and future research opportunities are discussed; these form part of feedback to be shared directly with DP DHL, specifically focusing on the links between Organisational Learning (OL), CI, innovation and Knowledge Management (KM) and the development of the management structures EI competency. The potential to develop an AI approach to colleague engagement forms a key element of this future research proposal and a roadmap is proposed in support of this.

9.2. OVERVIEW OF AIMS AND OBJECTIVES

Following a logical approach the original aims were to:

- 1) Understand what is presently considered as best practice for CI implementation programmes and evaluate against current DP DHL practices.
- 2) Identify how to successfully implement CI programmes across multiple DP DHL sites in a consistent manner across UK and the wider region of EMEA.
- 3) Determine the potential for a symbiotic relationship existing between organisational learning and CI. If proven investigate how this can provide mutual benefit through implementation programmes.
- 4) Development of a Continuous Improvement Implementation pack. This is envisaged to provide a framework of how to approach implementation by defining key steps that local teams will interpret to fit their own cultural diversity. Target audience identified as site General Managers and CI / PI practitioners.
- 5) Evaluate and propose a competency framework for CI implementation managers, taking into account emotional and cultural divergences.

The thesis objectives were to:

- 1) Expand the present understanding of what constitutes a successful CI implementation program and use this information to offer improvements to the process in a logistics environment.
- 2) Design a formal process to support implementation of CI that can be adapted to suit localised differences in culture and ethnicity.
- 3) Interrogate the depth of the proposed symbiotic relationship between OL and CI, and apply the outcome of this to support improvements of implementation practices.
- 4) Develop a CI implementation pack through internal (DP DHL) stakeholder buy-in, identifying the key elements required for success. Pilot the process and audit outcomes, review prior to wider roll-out.
- 5) Develop a competency framework for CI implementation managers as a precursor to involvement in CI implementation programs.

In support of the conclusions drawn, the following information is shared with the reader, providing a back-stop of recognised CI requirements. The Japanese approach [Taiichi Ohno of Toyota] set particular cultural expectations on the Toyota organisation in the 1970's:

- Standards should not be forced down from above but rather set by the production workers themselves.
- When you go out into the workplace, you should be looking for things that you can do for your people there.
- You've got no business in the workplace if you're just there to be there; you have to be looking for changes you can make for the benefit of the people who are working there.

Davis (2006) introduced CI with a number of descriptions covering basic concepts which are noted here. CI activities usually occur at three levels within an organisation. The first level, also called the floor level, concerns itself with Kaizen or good changes within the control of the operator. The second level, PI is concerned with continually improving processes. The third level, business process reengineering, is concerned with radical changes in processes.

Five S (5S) is derived from five Japanese words namely; Seiri, Seiton, Seiso, Seiketsu and Shitsuke. The practice of 5S aims to embed the values of organisation, neatness,

cleaning, standardisation and discipline into the workplace basically in its existing configuration, and it is typically the first lean method implemented by organisations (James-Moore and Gibbons, 1997).

9.3. CONCLUSIONS RELATING TO AIMS AND OBJECTIVES

As the literature review developed it became evident that aims one, two and three had a high level of overlap. Research into best practice for CI implementation identified a number of contributory elements with Organisational Learning (OL) acknowledged as an essential component of CI implementation. Boer et al. (2000) comment that there is acceptance in international best practice organisations of an OL approach to CI; including products and key processes and both OL and CI are linked to organisational change. OL is a concept used to describe certain types of activity that take place in an organisation where the embedding of individual and group level learning form part of the organisational structure and processes (Struckman and Yammarino, 2003).

With regards to objectives one and two, linked through their natural synergies, there was no identified set of parameters for best practice implementation and no single set of processes readily available that can be '*cut-and-pasted*' into a specific site or business documentation portfolio to ensure success. At no point did any published works provide a step-by-step approach to CI implementation apart from an overview of how to use CI tools from a task-orientated perspective. This would suggest the softer skills elements of successful implementation are lacking within published literature.

Change management [cultural approach] is identified as an enabler through colleague engagement; coupled with task elements of implementation, however developing this to an objective output was not possible within the scope of the research. Based upon this the opportunity to offer direct tangible recommendations against these objectives was not possible. What is proposed in the recommendations is a linkage to the Certified Supply Chain Specialist (CSCS) program, a corporate DP DHL engagement program and how this can be leveraged in support of the objectives.

Through published literature CI implementation is seen as widely eclectic in application supporting the need to achieve aim two of the thesis; how to successfully implement CI programmes across multiple sites in a consistent manner across the UK&I. To achieve this effectively requires senior sponsorship to support the resource requirement and look for behavioural trends, impact of cultural / ethnic differences and acceptance of what is deemed as a best practice, consistent approach. The team from the

Operations Maturity Model / CI community looking at CI cultural change may be a potential avenue to explore this further should it be deemed appropriate against their current work-related objectives and resource availability / allocation.

OL is repeatedly quoted within the literature as an enabler for driving employee engagement with their respective organisations and CI is closely tied to this in innovative, forward thinking organisations. OL is identified as an important parameter in the accomplishment of logistics and supply chain goals identified as a contributor to logistics innovation. The diversity of ways that learning is conceptualised within literature supports the view that learning takes place in three recognised ways; learning through formal training; the use of interventions in the workplace and learning that is embedded through exposure to day to day activities through individuals' reflections on experiences. When the quality of learning is high the potential for the respondents to absorb, use and pass on the learning to colleagues and the organisation can lead to more positive outcomes than would have been possible without a symbiotic relationship being in place; thus confirming aim three that there is a symbiotic relationship between OL and CI.

Objective three was to understand the depth of the symbiotic relationship between OL and CI and the literature review supported a positive correlation between OL, CI, innovation and KM, all key elements of positive implementation of organisational goals. This supports a central requirement to have an OL approach to drive future success. How this can be leveraged will be discussed within the recommendations, however research and subsequent review suggests DP DHL have numerous opportunities to improve on the present position.

Aim four was identified as; the development of a CI implementation pack, envisaged to provide a framework of how to approach implementation by defining key steps that local teams will interpret to fit their own cultural diversity with the target audience identified as site General Managers (GM's) and CI / PI practitioners. This aim and subsequent objective four were viewed as one where a proposal based on empirical data, respondents feedback and the researcher's experiences, would provide a credible proposal.

Since conception of the thesis, the CSCS program has come into being and the researcher has reviewed the program expectations. Following reflection, the intention is to propose that this objective's output forms part of the CSCS program scope as a key element of colleague on-boarding to a CI culture through an Appreciative Inquiry

(AI) approach. If facilitated in this manner it would target all colleagues rather than the GM's and CI / PI practitioners' population and could boost colleagues' perception of CI, unlocking discretionary effort / benefit potential.

The use of AI would be an area to spend further time developing as it would constitute specific training and development its own right. In order for this to be actioned senior leadership sponsorship would be required and it could then be taken from conception to initial pilot roll-out within the CSCS program in a three-to-six month period should it be appraised as such and resourced accordingly. It is firmly believed this could be part of the CSCS program scope and a framework to support this proposal will be offered within the recommendations.

The fifth aim was to evaluate and propose a competency framework for CI implementation managers, taking into account emotional and cultural divergences. In order to implement CI programs across sites effectively the ability of the individual or team delivering CI programs is identified as an enabling or blocking factor. The competency of CI implementation managers appears at first pass to be directly linked to their academic knowledge of CI tools, however the literature review offered a contrast in position suggesting that many softer skills are required to balance the task oriented CI tool elements. This was ratified by the interview population thus supporting this aim and subsequent objective five of providing a competency framework for CI implementation managers as a precursor to involvement in CI implementation programs, developed within the recommendations section.

9.4. CONCLUSIONS DERIVED FROM THE LITERATURE REVIEW

In a market that is characterised by strong customer influence, tough cost controls and choice 3PL's are focussing on internal cost reduction strategies to improve margins in the face of on-going pressure to reduce costs by customers. Through the literature review it became evident that unplanned or poorly planned approaches to CI implementation programs with no clearly defined strategy, lack of required resource coupled with poor delivery by change agents would significantly affect the chances of success. A lack of leadership buy-in and support, including an absence of cultural awareness to the localised area would be unlikely to deliver sustainable change.

DP DHL has used CI / PI tools with a degree of success for a number of years and has CI methodologies in place. It has not yet made the leap to fully embrace CI within its management culture and operations in the way that automotive manufacturers,

particularly in the United States and Western Europe have. The need there was driven by the dominance and speed of their Japanese competitors rise to success and market share growth following a lean approach to manufacturing through Kaizen, Just in Time (JIT) and Total Productive Maintenance (TPM) programs. DP DHL have significant competitors in their markets and ensuring they retain the number one provider position should be challenge enough to ensure that CI implementation gains necessary momentum and senior leadership support.

Understanding cultural diversity was noted numerous times across many topic areas as an enabler or blocker to positive change; in this case CI implementation, dependant on how it is understood, approached and leveraged. Many differing viewpoints relating to the definition of organisational culture were noted within the literature review with the conclusion drawn that there is a wide variation in the accepted definition of culture across published authors.

One fundamental difference of orientation towards culture is summed up by Hofstede (1991) who posed the question as to whether culture is something an organisation consists of, or comprises of what an organisation is. This conjecture is worthy of its own research paper to examine the possibilities in detail and from the literature review undertaken the conclusion reached is that published authors' views varied widely, suggesting further research is required to increase understanding.

The literature review has accentuated the researchers understanding that to successfully implement CI simply selecting a group of CI tools to be used in isolation and training them out will not work effectively without influence from the organisations core values, culture and ethos being aligned with the leadership direction. '*Tools and Techniques*' is a term often used in formal publications discussing CI and other organisational change programs. The researcher proposes that this term be expanded to include traits; *Tools, Traits and Techniques* (3T's) to include individual and organisational traits due to the significance of how they [individuals and organisations] interact.

Individual traits are identified as the: "*distinguishing qualities or characteristics that typically belong to a person*" (Oxford English Dictionary, 1984). Organisational traits do not offer such a succinct definition and vary from author to author; however what is evident is that each organisation has its own unique personality. This is in line with individuals and it is important to draw on the positive opportunities therein to forge deep, meaningful relationships between all levels of an organisation and its employees.

DP DHL have now re-enforced the importance of these relationships with Strategy 2020 communications taking place through 2014; the success of this will be measured by how effectively the message reaches all constituent members and how they interpret and use it for mutual success.

9.5. CONCLUSIONS DERIVED FROM INTERVIEW FEEDBACK

9.5.1. Leadership Style and Support

A common theme within the respondent views was the need to lead from the top of the organisation with clear, tangible evidence of support. CI implementation is both important and relevant for DP DHL in order to compete effectively in the global 3PL market. We have pockets of good practice however these are not communicated or shared effectively leading to a position whereby missed opportunities to share best practice are evident. GM's are identified as a key population to engage with CI implementation and a higher proportion are now recognised as working within the CI agenda. It is necessary to provide them with an understanding of what the expectation is to ensure consistency in approach. This has improved over recent times however there is work to do for a CI cultural shift to take place.

Sadler (2001) discussed that a particular leadership style in a learning organisation is necessary; they should be learners and coaches promoting the development of employees through mentoring. This contributes to leaders becoming sensitised to the opinions of workers supporting a responsive attitude to their opinions thus encouraging interest in workers who see true engagement from their organisations leaders. Entrepreneurial leadership is frequently cited in published works as an enabler for colleague buy-in, with the use of real-life experiences reinforcing the messages portrayed.

In reviewing the interview outputs senior management sponsorship and maintaining a consistent leadership approach through programs were identified as supporting positive outcomes to CI implementation processes. Engaging the right people, especially powerful sponsors, in identifying a focus that is of high interest to those leading the organisation whilst being compelling to stakeholders is commonly held to be critical to overall success (Barrett and Fry, 2005).

The leadership team within DP DHL understand the need to facilitate local sites taking more of a pro-active approach to target setting whilst recognising the need to measure CI / PI initiatives to know where they are and to improve, ensuring CI forms a key element of how they operate. It is appropriate to measure activity levels to check progress; however the concept should be to gain momentum through targets and then allow the process to sustain with more local controls in place. This approach would provide an objective indicator of the level of business as usual (BAU) activity achieved, a true measure of cultural change and embedding of CI programs.

9.5.2. Organisational Learning

The question as to whether DP DHL understands the importance of OL returned a number of positive responses, indicating that the majority of respondents felt there was progress being made in this area. The Employees Opinion Survey (EOS) was identified as one medium for senior management to understand where we are as a number of the questions target employees' feelings about the organisation. It is concerning to note however that in the EOS the questions that relate to mistakes being used as learning opportunities and immediate managers supporting colleagues needs do not generally score highly.

The Emotional intelligence (EI) of managers was examined in an attempt to understand how they influence colleagues' expectations when related to engagement, culture and the working environment. The consensus opinion of FLM's was that there is a need to up-skill them to develop their '*emotional competency*'. An over-riding theme suggested opportunities to develop had been minimal in the majority of cases for this large, influential group within the management structure of sites. DP DHL is predominantly task-driven in approach as opposed to people / culture orientated and this may be a contributory factor in the historic approach to task management.

It is recommended that DP DHL Talent and Development function design a one day appreciation course for FLM's to raise their EI understanding and awareness of how they approach and engage their teams and the impact that positive and negative interactions can have on colleagues behaviours; this in line with Johari Window and Batari Box principles of positive engagement and trust.

Within the semi-structured interviews it was noted that DP DHL can often have an information overload whereby colleagues are bombarded with a level of data that makes absorption difficult. A simple recommendation is to revisit the perceived

simplicity / complexity of present CI information available for colleagues; be that in booklet, pamphlet or electronic forms to review the possibility of putting together a maximum two-sided A4 guide. This could be a cost effective way to get the message out to a high volume of colleagues, particularly if it is followed up by the opportunity to become involved with a small-scale CI / PI activity.

9.5.3. CI Tools and Techniques

One of the established approaches to CI is Kaizen, targeting workplace improvements at the shop-floor level particularly. There was limited evidence of standardisation across sites or customers. In a similar manner, 5'S programs form the basis of Lean approaches to work and these were also highly variable across sites and customers.

Contrary to this, the researcher's site has seen very positive outcomes to Kaizen events with high colleague-to-manager participation ratio and commitment levels, successful outcomes [engagement and cost benefit] and positive feedback. Trust developed at the onset of these events between the managers and colleagues involved; combined with experiential learning gained through the projects, were identified as enablers for the positivity seen, with repeat results adding a level of validity to outcomes.

Colleagues, who previously had minimal opportunity to formally affect the business, were placed in a position whereby their opinions and ideas were truly valued and acted upon with tangible evidence of this for all to see. Transparency is a must, as is showing genuine interest and recognition of achievements by management teams. All events have a post event review in the work area supported by the Site Leadership Team supporting colleague engagement.

One effective CI tool identified was Corrective Action, Preventative Action (CAPA), a formal process used in the closure of smaller-scale issues ensuring they do not to repeat. CAPA is designed as a responsive tool that can be used to resolve issues at the point of source, hence it is not office based. The use of CAPA is possible across all working environments and is a simple process to share with all levels of colleagues.

9.5.4. CI Culture

A review of the DP DHL approach between task and people / culture orientation shared through the interview process suggest we are overtly task focused leading to a position

whereby we are target-driven against suites of KPI's deemed as corporate reporting requirements, not value adding to sites or colleagues. Feedback suggests that we are consumed at times with said targets and measuring; with little or no engagement of sites in setting them. This contrasts sharply with the proven Toyota culture and the ethos of engagement and organisational learning approach. Explicit measurement of CI / PI success through targets is thus not driving colleague engagement, quality of CI implementation or cultural change from feedback of the interview population.

It was evidenced that we are not always clear around giving colleagues pride in their business and sometimes this is because our colleagues feel more aligned to their customer than DP DHL. Many colleagues do not identify with DP DHL, and in some instances, do not realise that their employer actually is DP DHL, believing the customer is their employer due to strong customer branding. This negates any possibility to drive engagement or an OL culture approach and local management need to recognise this and put plans in place to ensure all colleagues are engaged by their line managers and made aware of corporate strategies and local plans that they are part of in their respective roles.

If DP DHL are looking to differentiate themselves through a CI culture they do not market this effectively for their customers or colleagues presently. Feedback from customers supports this perception of lacking in a CI approach to business and colleagues' awareness of CI across sites is limited. Financially we have made great progress as a business delivering in the region of £20m of benefit across the Retail Division for our customers in 2014 [with limited value to DP DHL]. Educating customers to better understand what was delivered against CI expectations therefore presents itself as an opportunity to improve.

The pressure driven by '*wafer thin*' margins was noted by several respondents causing enthusiasm for improvements to lag behind a desire for immediate cost reductions / avoidance by DP DHL and customers. In essence customer behaviour is driving ours in the wrong direction. Changing this behaviour is fundamental if we are to drive the CI culture forward rather than encouraging a cost avoidance culture, which is neither sustainable nor engaging for colleagues.

With regards to Davis (2006) expectations of a CI culture, we display minimal elements of Kaizen, and are positively driving PI. Evidencing the third level, business process reengineering concerned with radical changes in processes, suggests minor evidence of this occurring. If it is taking place communications and positive sharing opportunities

are not reaching the wider DP DHL population, missing the opportunity to share any best practices realised or lesson learned. Our ability to communicate innovative opportunities is lacking in a similar vein to PI activities; this noted repeatedly with effective communications identified as a key element for CI to succeed by providing a consistent message through our existing and future communications channels.

Organisational Frames of Reference (OFOR) facilitate the development of distinctive cultures and identity for organisations and systems of control providing a stable framework through which colleagues are able to interpret their own organisational world and interact with it. In summary they provide a means to explain and help define organisational boundaries. They set rules for developing behaviours and create a context in which decision making and action are possible (Shrivastava and Schneider, 1984). DP DHL need to understand what messages they are trying to share with colleagues at all levels of the organisation.

9.5.5. Corporate Overview

DP DHL have a strong portfolio of corporate programs identified as beneficial in driving CI implementation processes forward. These fall under the umbrella of *First Choice Way* (FCW) and include; Performance Dialogues (PD), Operations Maturity Model (OMM), Gemba Walks and CSCS. The overriding message coming through is that consistent use of corporate programs within our FCW approach to drive engagement and business improvements is necessary; however this is not always evident presently. One concern repeatedly raised is the lack of resource available to complete roll-out of the existing corporate programs in a timely manner.

Minimum standards are an area requiring attention, and this sits within the DP DHL Strategy 2020 namely Focus, Connect and Grow. The OMM program is planned to support standardisation across sites however this activity appears [presently] to be more of an audit process than supportive, lacking resource to change this position. This may work on more mature sites that have developed a level of FCW and CI approach; however it will not provide value on sites needing guidance and on-going, professional support. How this develops will be key to the success of DP DHL Strategy 2020 Focus, Connect and Grow regarding how we improve sites to an agreed baseline.

The interview process provided evidence that we talk 'at' our colleagues, rather than 'to' them at times. We should be engaging with them for their ideas and sharing experiences at every opportunity and the above approach will not support that. When

we commit to colleagues we have to come through for them, again evidence suggests we don't always meet our colleagues expectations.

The most positive potentials for changing our approach to engagement with our colleagues are the CSCS program and PD's due to be rolled out through 2015. These programs are supported from the very top of the organisation and will be fully integrated at sites to ensure success. The CSCS program has not landed as yet, hence there needs to be piloted sites leading to formal roll-out. This process should include good news stories to share, supporting a positive transition towards and through the program.

Rick Jackson, Vice President Global Head of CIS [equivalent to CSCS] at DP DHL Express commented that:

"CIS; Certified International Specialist is a cultural change initiative focusing on engagement and motivation which encompasses all employees and hinges on helping people understand their role and how it fits in the wider remit of the business...CIS represents a real success story, transforming the organisation, boosting the bottom line and highlighting learning and developments strategic role in business".

This feedback from the DP DHL Express business suggests that CSCS is based upon a proven approach when implemented successfully; supporting the benefits DP DHL Retail Supply Chain UK&I are looking to realise.

9.5.6. Knowledge Management

KM was an area raised as an opportunity to improve awareness from the majority of respondent feedback. LOGIC's is noted as a new reporting system designed to alleviate issues seen with the existing intranet based communication processes. This is a positive development for KM and is planned to reduce the reporting expectation placed upon sites once fully integrated.

KM is not presently understood, this derived from the high variance in feedback as to its organisational importance from respondents feedback. The high level of tacit and explicit knowledge in our colleagues, systems and portals should be supporting our position as the number one provider of choice for customers through differentiating our offerings and supporting great start-ups for our customers. Hansen (1999) found that the complexity of knowledge could have a significant impact on the ability to deliver innovation processes, defining complexity in terms of the degree of tacitness and inter-

dependence of knowledge; thus if knowledge is highly inter-dependent a full understanding is not possible without a level of understanding of related knowledge.

This was raised as an opportunity to improve through respondents and it is recommended that each site undertake a formal review of their existing operational procedures to identify gaps in formal recording of explicit knowledge relating to key processes; including opportunities to improve the capture of tacit knowledge from colleague experiences in the workplace. The synergy to OMM is evident here, however the differentiator is how to leverage the value of site tacit and explicit knowledge bases.

Within logistics, Unipart, have developed a program named '*The Unipart Way*'. Their ability to market this approach to working practices, KM and culture is presently some way in advance of DP DHL FCW within the marketplace for visibility; the marketing of our products needs to improve if we are to leverage the distinct value proposition to customers that FCW can deliver when applied successfully.

9.6. QUANTITATIVE OUTPUTS FROM INTERVIEW PROCESS

One of the two quantitative measures for DP DHL discussed within the interview process was the ability to successfully implement CI / PI processes; the results obtained ranged from a low of 2-3 to a high of 7 out of a possible 10. The average score was 5.1 suggesting there is work to do in improving CI implementation processes. This result would suggest that if DP DHL benchmarked themselves against a Toyota level organisation today, there would be a significant gap to close in order to establish peer levels of CI best practice and culture.

In response to the second quantitative question the score for importance of CI to the DP DHL organisation ranged from a low of 5/6 to a high of 10. The average score was 7.65 which suggests that the importance of CI is recognised, however not to the level that it predominates other strategies of the organisation. In a purely voluntary, unexpected manner, a number of respondents offered their score for the importance of CI to them and it was a straight 10 in all cases suggesting the motivation within the interview population for CI to succeed is compelling.

9.7. RECOMMENDATIONS

The recommendations detailed below are formed from a number of inputs leading to further review of ideas identified, interrogated and subsequent outputs formulated. The researcher's pre-existing professional knowledge and experience were supportive in developing the original direction of the literature review, however the researcher remained consciously aware that a high level of neutrality and low bias would better inform the audience of potential opportunities to move forward positively with CI implementation programs.

9.7.1. CI Tools and Techniques

The initial recommendation deals with the suite of CI tools and techniques that DP DHL presently utilise for their CI / PI initiatives. It is recommended that a framework of tools, including an appropriate toolbox of foundation level CI basics is created, incorporating a transparent matrix as to which ones to use and when, to be provided and adhered to by all CI stakeholders. Without a targeted approach to the tools and techniques available; including understanding their short, mid and long-term application criteria for success, CI programs will continue to provide minimal tangible benefit.

The scale of CI implementation needs to reflect the benefit potential of an operation and have a modular, staged approach to ensure sites of a different scope apply tools and techniques that are relevant and cost-effective; OMM outputs will support this. The logic here is that 100% implementation of a '*Toyota*' approach is not necessarily the best option for all sites and may be cost prohibitive in the majority of smaller, less complex sites compared to larger opportunities at complex, larger-scale operations. The researcher proposes the following criterion as one option as to how sites could be identified, a transparent scoring regime would be required to drive consistency:

- 1) Business KPI's of longevity of contract; size of account; closed or open book contract; headcount and a cost vs. benefit analysis.
- 2) The CI maturity position of a site; competency and resource availability of PI Champions to support the CI implementation program.
- 3) Past performance against agreed CI / PI targets.
- 4) An OMM approach to identifying the CI opportunities at the location.
- 5) FCW - EOS scores as a manager / colleague engagement benchmark.

Overall this would provide a clear understanding of the level of CI to be implemented at a site, signed off at senior level with a forward-looking opportunity funnel of a minimum two-year expectation identified.

The literature review relating to CI tools suggests a start point based upon 5S to create a stable foundation before moving to more complex tools and processes. Lack of embedding a 5S culture will lead to more sophisticated CI / PI approaches failing as there is no bedrock to build upon. Womack and Jones (2003) describe the mapping of process value streams as one of their six steps to success; this portrayed as a secondary example of the right level for initial CI application as you need to understand where your value streams are to drive improvements in the most effective areas.

There was evidence from interview feedback that we attempt to complete more complex CI processes such as DMAIC, before embedding 5'S leading to a lack of success, negating positive engagement opportunities with colleagues and little or no change in the culture. This is driven in part by the '*memory stick*' approach to knowledge sharing; you can copy presentations and ideas, however you cannot copy a sites culture.

9.7.2. Corporate Programs and Communication

DP DHL have many concurrent corporate programs in place and it appears that before one is progressed to a mature embedded position, another one, or more are instigated. This leads to potential failure and confusion for colleagues as to the identified targets and goals we are striving for. The recommendation here is that existing corporate programs should be communicated in a manner that provides a clearly defined roadmap before a new initiative is implemented. This to be transparent to site GM's and colleagues, including time-lines and allocated resource / responsibilities and expected outcomes / opportunities identified. This would afford a level of buy-in not evident presently and would drive colleague and local management engagement.

Through reviewing culture and change management, Kotter (1996) and the DP DHL Accelerated Change and Transition (ACT) program; the first criteria in change management is to establish a sense of urgency to support the need for change, this in line with Womack and Jones (1996) view that a mutual need for purposeful change is required. Kotter (1996) highlights a suite of requirements for the eight steps to successful change and these are summarised within the third reflective element of the thesis. Turning this directly to DP DHL suggest that once the way forward is fully

mapped out for successful CI implementation, the use of DP DHL ACT change management processes coupled with CI tools and techniques may be fundamental to delivering overall success rather than a task driven, project management approach. Discussing the shared need for implementation, to facilitate buy-in with the wider community of colleagues, will support the way forward with a central CI / PI strategy in place based on engagement and cultural change.

LOGICs is the new reporting system designed to alleviate issues evident with the existing intranet based communication processes. It is recommended that a critical, objective based review of the LOGICs system capability should be undertaken once the system is established. This would ensure it delivers against original expectations and does not fail to provide the reduction in time expectation placed upon users; particularly the GM's and leadership teams at sites identified as a group presently spending too much time fulfilling corporate reporting requirements.

A further recommendation is that DP DHL review the way they communicate with colleagues, making it a more personal experience, relevant to drive engagement in a format that is easy to understand and of interest to the wider population of colleagues. By simple examples; a colleague will be more interested in communications relating to welfare elements such as warehouse heating and cooling systems working; having a clean and safe working environment; the quality of food provided increasing; their views being listened to by FLMs or transparent application of important areas such as holiday entitlement before they will be motivated to put any effort and / or time into understanding a corporate initiative. This may be an overly-simplistic perspective of Maslow's (1943) '*Hierarchy of Needs*' however it remains relevant to colleagues and managers alike.

9.7.3. DP DHL CI Maturity

Starting at the initial position of: '*Are DP DHL successful at implementation of CI?*' leads to the following set of recommendations based upon the recognised desire for DP DHL to differentiate itself from competitors through:

- Cost competitive, engagement and innovative approach in our offerings to customers to drive '*Customer4Life*' (C4L) expectations.
- Standardisation of processes across customer and DP DHL sites to ensure consistency in measurement processes across business promoting and apples vs. apples approach. In line with Strategy 2020.

- Effective deployment of our CI culture in a consistent manner across the organisation taking into account localised cultural differences.
- Use our diversity to positively drive change and unlock new business potential.

The identified enablers of the above are recognised as the need to lead from the top of the organisation with clear, tangible evidence of support; this to include a clearly presented vision, concise in nature and understandable for all colleagues who are the target audience. The recommendation here is that the professionally articulated corporate communications received at site, relating to corporate initiatives, must be '*jargon free*' and disseminated in such a manner that localised expectations and understanding of the intended messages are landed effectively with our colleagues. Answering the '*Why CI?*' question becomes relevant at this juncture; if management cannot do this, there is minimal scope to expect engagement and buy-in from others.

Throughout the literature review the repeat message is that CI implementation requires a long-term approach, with Kotter (1996) describing necessary change as taking years and being built in layers. Beer et al. (1990) emphasised the level of persistence required to deliver significant organisational change requiring high commitment and leadership to see the business through the short-term '*headwinds*' of competing priorities and challenges.

It is evident from the majority of respondents and elements of the literature review that organisations habitually look to the short-term / next quarter results as a timeline not to be deviated from or missed. This can lead to a lack the vision, motivation or avoidance of potential risks [to career of local decision maker] or similar negative influences, thereby offsetting opportunities to migrate to a CI culture and achieve longer term, sustainable improvements. Sites need a leap of faith from their organisational leads to help with managing customer expectations to support them in embedding cultural change. This would drive longer term improvements whilst recognising there may be challenges against immediate performance levels through transition, leading to a more positive experience for DP DHL and their customers in the future.

Delivering business objectives is fundamental, however if you don't '*drain the swamp*' (reduce problems) the '*crocodiles*' (customers) will always be biting at your heels. Panayides and So (2005) identified timeliness and responsiveness to customer problems with accurate solutions as essential in providing high quality logistics services. One CI tool identified as Corrective Action, Preventative Action (CAPA) would be the formal process to use enabling closure of smaller-scale issues ensuring

they do not to repeat. There is work to do in improving how the CAPA process is utilised at sites, evidenced by the respondents. The recommendation is that retraining and formal auditing in the use of CAPA is provided to sites, including the parameters as to how it should be deployed and the way success is measured. Explicit measurement, as discussed is not the solution to embedding improvements.

9.7.4. Organisational Approach

In order to drive OL in the broader terms for the majority of shop-floor colleagues, it is necessary for the local site and leadership management levels to be more visible to colleagues. Trust was identified through the literature and interview processes as a key requirement for building relationships, supporting engagement and trust cannot be gained if you are not there to be seen or interacted with. It is not a tangible asset you can pick up, copy or force. Trust has to be earned and nurtured to be maintained and it recognised as easier to lose than it is to acquire.

Training and development programs across DP DHL are substantial in number, however their accessibility to all colleague levels is an area to review and it is recommended that a percentage [to be agreed formally] of colleagues at a site should be identified and developed through existing colleague talent and development programs. Not all colleagues wish to develop academically, however effective means to find the '*jewels*' in our workforce should be put in place to find the next generation of GM's and the like for our organisation.

Objective four posed the challenge of formulating a CI implementation pack. As noted within the conclusions section, the scope of this changed due to the corporate CSCS program and the recommendations relating to this point are two-fold.

Firstly the CSCS on-boarding process should have a core element based upon DP DHL's approach to CI and the significance it can provide to individual and organisational success. This to include specific parameters such as a basic understanding of CI; frequency colleagues would be expected to support CI initiatives; opportunities to become more involved should they show a particular interest or aptitude; opportunities to work within the CI function [lead small-scale Kaizen events or similar at site]; formal commitment from site management to sustain CI approach; '*good news*' stories to support the credibility of CI and transparent, honest feedback as to where colleagues fit into the wider organisational remit of CI's organisational importance.

The second element would be the use of AI through the CSCS process to drive the positivity that can be leveraged by AI driving constructive engagement and outcomes. Bushe (2007) suggests that AI generates spontaneous, unsupervised, individual, group and organisational action toward a better future and DP DHL can hone into this through the CSCS program. AI requires an element of trust in approach and as noted this is key to developing meaningful relationships between colleagues, managers and their respective organisation. Published and first-hand evidence suggest that AI is an under-utilised approach that can deliver large-scale benefits through boosting colleagues' perception of their organisation, thus unlocking discretionary effort / benefit potential by making their jobs more fulfilling, whilst improving business performance.

9.7.5. Skill-Set of CI Practitioners

Objective five drove the need to understand current DP DHL approach to PI and Senior PI advisors selection and progression in their roles against published literature and interview feedback as to what the roles required to maximise potential for success. Training and education of change agents, in this case PI and Senior PI advisors is vital. Womack and Jones (2003) suggest that training, management support and structure are key success factors for successful implementation to occur.

The current internal PI Champion academic training plan is robust in nature with specific elements and sign-off defined as pre-requisites for progression to successive stages. The skills identified for the present incumbents are identified in the left-hand side column (see Table 22) taken from the existing PI Champion recruitment process with the proposed additional skills / behaviours required to facilitate the necessary cultural and engagement expectations of the role in the right-hand side column.

The additional skills identified were formed from outputs of published literature, merged with respondent perspectives. EI and self-awareness were prominent features against the existing training identified and the recommendation here is that PI Champions should either attend the existing Leadership Enrichment Program (LEP), which has a high EI and engagement content to it, or that a shorter EI program is put together through the DP DHL Talent and Development function.

This could form part of the existing PI Champion training program at a specific level where the facilitator has a higher expectation placed upon them to deliver success through colleague engagement. With regards to the need for a non-CI academic skill

set for CI implementation managers, the need for '*Underpinning Knowledge and Experience*' (UK&U) combined with softer skills were identified as the balanced conditions for success.

The observation here is that academic aptitude or seniority of position should not override the necessary behavioural skills discussed for the CI implementation manager. Continuing Professional Development (CPD) forms the basis of professional registration in many fields external to CI, driving the legitimacy and recognition of members who attain a certain level of proficiency within their professional roles. It is a recommendation that DP DHL actively search for an external, accredited body for CI practitioners and set up a framework of competency requirements; including academic; task; cultural change elements and CPD expectations to support development towards Sensei; Subject Matter Experts (SME) level, as a benchmark internally recognised as Senior Advisor Gold.

Existing skill-set identified (Task primary, behaviour secondary).	Additional skill-set / behaviour proposed (Behaviour primary / task secondary).
Knowledgeable about process to be improved.	Understand what motivates people; adapt learning experience for the audience to drive engagement.
Structured and analytical, not totally averse to data and mathematics.	EI - Self-aware people who can understand resistance. EI - Have to be able to influence others and ensure that the audience is receptive; there is a skill to winning them over.
Willingness to learn and to take on new approaches.	Underpinning knowledge and experience coupled with softer skills
Ability to positively engage with people on different levels and to mobilise the Improvement activity team.	Leadership ability, with confidence in own abilities, trust required to drive engagement with audience.
Basic activity management knowledge to manage the schedule and work packages.	Keep away from using corporate terminology; talk the same language as those in the room. Use simple terms to get point across.
Comfortable facilitating upwards of 10 people in workshops.	Facilitation skills evident, colleagues need to feel it is a safe environment.
Presentation experience.	Cultural understanding. Tailor to suit audience; split training between generic and abstract.
Taken part in at least one workshop.	Understand that colleagues are the ones doing the job; they are the ones to learn from as they know how the job should be done.
	Use of analogies / stories is a positive way to approach learning; engagement can be very positive as most like to hear a good story.
	Making it a more personal experience can work with colleagues and drive engagement.

Table 22 - CI Practitioner Additional Skill-Set (Author's Own, 2014).

A further recommendation tied into the delivery method of CI implementation is that training and implementation of this type of change expectation cannot be delivered effectively by impersonal media such as e-mailing of presentations. The organisation needs to focus its CI / PI resources developing them into a team of mobile, well-trained Sensei [master teachers] equivalent as noted. This may necessitate an approach to a Toyota equivalent organisation to bring in external CI skills at that level of expertise [respondent observation] to complement our existing CI skill base with a fresh, outside perspective including significant experience of delivering Lean, CI and change management. Without this investment the organisation may not have the organisational capability, experience and capacity to effect the large-scale CI cultural change identified as an organisational goal.

9.7.6. CI Resource

Resource allocation for CI is an issue identified repeatedly and not all sites have the financial scope to have a full-time PI champion in place. One consideration would be that we complete a formal resource review of the CI / PI / Ops Excellence and associated teams currently in place to understand the potential therein to market our internal expertise in these areas and create a profit centre, effectively *selling* their skills to internal / external customers.

This could be developed into a specialist business offering DP DHL CI services in a differentiated way; it would also drive a shift in mind-set for CI implementation if good news stories coming out of this were communicated to the wider population. This would also support a paradigm shift of GM expectation from not having time, inclination or local resource for CI implementation to one of planning CI resource allocations with a central team to help drive bottom line performance and culture change.

Observations repeated within the respondents comments relating to colleagues is that we fail to utilise the full complement of skills they have available and have a tendency to compartmentalise them where they deliver a good job. The reflection here, rather than recommendation, is that we need to understand *'why'* this is the case. Evidence suggests we are not focused on our colleagues' development closely enough and have not established the depth of relationship with our direct teams that is necessary. Moving the majority of colleagues around [recognising not all want to] would be a motivator for their personal development, whilst realising an opportunity to improve the flexibility of a given workforce through increased multi-skilling.

The level of CI activity from the shop-floor colleagues is lagging in overall numbers and depth to which they are involved. This is in part due to the fact they are predominantly passive in approach. The recommendation is that a CSCS communicative approach to CI for colleagues would raise their awareness individually; however through targeting all colleagues on a prescribed program the equivalent of a collective approach of CI expectations would be possible, re-enforced through engagement with their local FLM.

9.7.7. CI and Innovation

An observation relating to the interaction between CI and innovation is that the natural progression from CI to innovation or triggering of a fundamental level opportunity through a level of association between CI and innovation is possible. Conditions to encourage this are a motivated CI team with external support from SME's and innovation champions having specialist skills designated as the change catalysts facilitating CI teams or other interested parties to drive innovation. When implementing new solutions / systems, this may require the change champion to be seen as an exemplar of how to act in response to the solution (Martin and Metcalfe, 2011).

The natural lead on from CI and innovation is how to incentivise colleagues to be the originators of new ideas, looking for ways to improve their work environment through participation in improvement opportunities. Presently there is a perception from the shop-floor that CI is a manager's job and the opportunity to change existing and new colleague perceptions through a CSCS CI approach would be the way to lead the paradigm shift to an all-inclusive one. Financially incentivising colleagues is not seen as a viable way to reward them and turns the relationship into a transactional one, limiting the engagement opportunities and colleague motivational level as noted by numerous respondents. A motivated workforce does not require additional financial inducements to perform at upper quartile levels; however the path to encouraging them to do so appears elusive at times.

9.7.8. Organisational Support to CI / PI Implementation

From an establishment perspective the organisation has a major part to play in supporting CI and innovation implementation. Table 20, Chapter 8 details the ideas shared by the respondents, with the main expectations noted below:

- Potential career path leading from CI; encourage people to become involved.
- Build PI skill set into the GM expectation.

- CI Practitioners trained / supported to bronze level.
- Dedicated CI role. Consistent format and resource at all sites.
- Organisation has to lead the program, with clear vision.
- Improve knowledge sharing and communications.
- Colleagues made available or allowed to manage their own time to be effective.

Miller and Katz (2002, p. 7) comment that most organisations are filled with barriers; rigid structures, poor training processes, outmoded equipment, misguided incentive programs and discriminatory promotion practices that keep people from contributing the full breadth of their skills. These barriers are typically rooted at the very culture of an organisation.

Pink (2009) proposes that organisations adopt a revised approach to motivation of colleagues based upon Self-Determination Theory (SDT). This theory proposes that we have an instinctive desire to be autonomous, self-determined and connected to one another and, when this positivity is liberated, greater achievements can be made leading to richer lives. Organisations should focus on these expectations when managing colleagues to support our innate need to direct our own lives [autonomy], learn new skills and create new things [mastery] and to do better by ourselves and our world [purpose]. The recommendation born from this is that DP DHL review the potential of integrating SDT with a CI approach to drive colleague engagement, fulfilment and discretionary effort.

The researcher offers three examples supporting the above:

- Autonomy – Supporting a colleague who lacks confidence to become more self-reliant, taking more responsibility.
- Mastery – This could be supporting a colleague with a stretch level learning opportunity in a field they have personal / professional interest in.
- Purpose – Mind-set change through increased awareness, supporting a colleague through a self-development opportunity.

Developing this recommendation further whilst accepting that financial rewards may not be agreeable as an appropriate way to incentivise colleagues; there may be the option to offer a comparative sum of money for an individual to pursue, for example, a course that would assist them with learning a second language (mastery). A second option from a direct business perspective could be support to a manager who would not

normally be identified as receiving full sponsorship to undertake an academic qualification or similar (autonomy, mastery and purpose). If a manager sacrificed their annual bonus to finance their development, or provided a significant financial benefit to the organisation, a level of '*top up*' funding from the organisation would provide a true feeling of buy-in from both parties and the opportunity to develop the colleague-organisation relationship through this would be evident.

9.7.9. Trust

Trust is noted several times within a wide range of topics relating to CI implementation and the recommendation is to educate our management teams that trust is pivotal in relationships with colleagues of all levels, identifying that trust is very easy to lose and contrary very hard to regain. Trust supports an open approach by colleagues to innovation opportunities, sharing information important to mutual success and building a relationship that provides a safe environment for colleagues conducive to a stronger '*working together*' ethos. Trust between co-workers scores highly between colleagues in the EOS however in the bottom five scores [active leadership] is: "*My direct supervisor takes an interest in what motivates me*". This is an area of concern for the organisation; a control and command approach to team management will not deliver discretionary effort and fails as soon as the manager is not in the vicinity. Trust supports the development of a discretionary effort ethos when truly embedded in a colleague / manager relationship.

9.7.10. Appreciative Inquiry

The potential to positively affect the outcome of CI implementation through use of an AI approach is the major '*surprise*' recommendation that has the potential to outweigh many others by impact should it be embraced by DP DHL in line with the expectations of Cooperrider and his colleagues. Cooperrider (2012) emphasises the limitations of problem solving for expanding human horizons and possibilities, pointing out that the most powerful force for change is a new idea. He argues that we need new forms of inquiry and change that are generative: they help us discover what could be, rather than try to fix what is.

From the literature review DP DHL's corporate programs CSCS and potentially PD's would lend themselves to an AI approach whereby we look to engage positively with colleagues for mutual benefit. AI seeks to effect change / transformations by focusing on organisations members' positive experiences, sharing these through collective

inquiry into the best of what there is, facilitating a drive to what could be, in line with Kotter (1996) for developing a vision of the future. Often participants in AI are interviewed about their own '*best of*' stories and this is recognised as an innovative approach to adding value through AI. This is followed by collective agreement of a future state that is positively compelling and therefore does not require the use of incentives, coercion or persuasion for planned change to occur (Bushe, 2013).

The above comment from Bushe is compelling in itself and the researcher has witnessed the potential, albeit in a one-off situation for the power of AI. A secondary area of particular interest is that there may be a link between AI approaches to change in an organisation with the EI of the employees therein. Thus the opportunity may exist for developing individuals, with FLM's specifically noted, through AI and EI synergies. This to specifically explore the aspects of EI that focus on reflection, understanding and analysis of self and others. EI can be developed by attending specific training programs (Cooper and Sawaf, 1998) with Goleman (1996) supporting this view suggesting that EI can be learned. Emotional competencies are thus able to be assessed and therefore improved, leading to performance enhancement for individuals and organisations collectively.

The recommendation is that DP DHL trial the use of AI to test the viability of it becoming a way to differentiate our colleagues, and thus the organisational performance and drive positivity in colleague / manager / organisational relationships. AI is a strategic approach to change transformation and sustainable growth for organisations and the opportunity is evident to implement AI in line with our CSCS approach to engagement and CI implementation.

9.7.11. Understanding the Depth of DP DHL CI Implementation (Culture)

The researcher notes within the limitations section that the group identified for the semi-structured interviews was comprised of varying hierarchical levels of DP DHL managers rather than having shop-floor colleagues as part of the population. This could be deemed as providing a biased perspective. The researcher proposes that DP DHL formulate a targeted set of questions relating to FCW, specifically to test the understanding of CI and culture [mind-set and behaviour dimension] across all levels of colleagues within the business, including agency colleagues [a group currently excluded from EOS] with six months or more working period with DP DHL on a site.

This would not be from a single set of questions as per the EOS survey presently as it would focus the questions for different hierarchical levels and departments to obtain valid data for the differing colleague groups. There is on-going concern relating to the EOS questions presently used as they do not target different groups effectively and many colleagues remain confused as to the context of what EOS is asking of them.

The expectation would be to have no more than ten questions so as to maintain interest and timeliness to complete, they would all be a multiple choice format with a single box for any written feedback. Responses obtained from the semi-structured interview process could be utilised to provide a pilot survey of questions at levels identified below, in this manner a more representative understanding of the general population would be gained:

- 1) Agency over 6 month's period and all shop-floor colleagues.
- 2) Clerical and FLM's grades up to N. Split clerical and operational.
- 3) Manager grades M to H. Split clerical and operational.
- 4) Manager grades H and below. Split functional and operational.

9.8. CONTRIBUTIONS TO THEORY.

9.8.1. CILT McKibbin Research Foundation

A research paper was submitted to the Chartered institute of Logistics and Transport (CILT) to answer the questions: '*What is Continuous Improvement?*' and '*What is current best practice?*' in the context of a logistics organisation (see Appendix 6). This paper subsequently won the McKibbin Research Foundation Award for 2014.

Feedback received from the CILT included the following:

"Lee studied whether organisational learning could provide an environment to support and make continuous improvement sustainable; he discussed a competencies framework for continuous improvement for implementation managers. His research references were broad but focussed and his analysis was clear, concise and easy to read. The paper provided evidence that research in this area could provide insights and direction for our industry". (Chartered Institute of Logistics and Transport, 2015).

9.8.2. Colleague Engagement

It is evidenced that OL has a fundamental part to play in CI, KM, colleague engagement and their ability to identify with the organisation they are employed by. DP DHL communication channels are key in how corporate messages are received and interpreted. It is proposed that the internal communication channels are inverted, thereby empowering colleagues to share their expectations with the organisation. The organisation should appraise and deliver what colleagues want to know; is it more local, detailed information, or a broader overview of DP DHL in the wider context of logistics and supply chain organisations, or likely positioned between the two.

It is not known if there are any tangible indicators of our ability to communicate effectively to colleagues and it is proposed that DP DHL review and develop non-EOS measures in support of a two-way, corporate-to-colleague / colleague-to-corporate communications strategy, taking learnings from this. EOS serves a very important feedback requirement, however the process is '*cold*' with colleagues sat at a computer to complete the questionnaire with little or no interaction with others. This is not an engaging way to provide feedback across the wide variance of EOS expectations and colleague backgrounds. If we make corporate level judgements based on EOS outputs any way to improve confidence in the data obtained would be an improvement.

The 'inverted' questioning session would be delivered by a team or individual's direct manager, facilitating ease of traversing up and down the organisation in a consistent manner. The ability to be open and honest offering an: '*I don't know*' response should be received without cause to criticise the incumbent and would be a measure of trust within their relationship to the organisation. This would enable a '*stake in the ground*' position to review and grow from. Figure 47 provides an overview of how the process would unfold.

One sample question from an engagement perspective would be that if we were to ask any colleague at a site: '*Who are the members of DP DHL Main Board?*' would anyone know? I believe a high majority associate with Frank Appel leading the organisation, however his direct reports and country / business leads may not be known to many. Are DP DHL accepting of this or is it an area to reflect on and change? This approach would move down management tiers to local management level and would be a revealing exercise to build up a true picture of OL, corporate OFOR and colleague inter-relationships, including how visible the organisation is to colleagues.

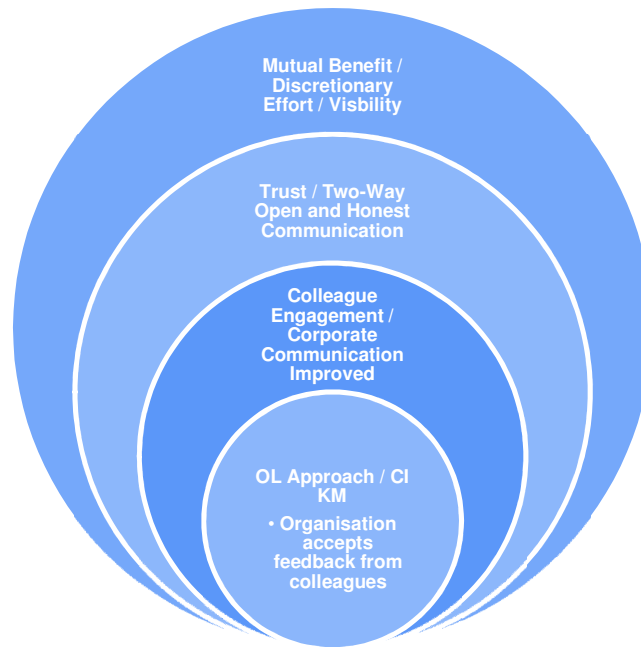


Figure 47 - Proposed “Inverted” Communication Process Outputs (Author’s Own, 2015).

9.8.3. Knowledge Management

With regards to effectively managing knowledge the interview process suggested there are significant improvements to be made. Firstly understanding the importance of knowledge management and secondly how do we maximise the outputs from explicit (recorded) and tacit (experience based) knowledge that we have across the full scope of the organisation. DP DHL need to use lessons learned from previous attempts to use a systems approach to KM (iShare) to ensure that LOGICs, the replacement system, does not become a difficult to use tool. It is in its infancy of use now and this is the time to ensure it is effective for all users and functions, through adding value, not creating non-value added tasks or huge repositories of unknown / unused data.

The contribution from a KM perspective is based upon development of the organisational understanding of KM, through effective communications and on-boarding, presently not evidenced from feedback. DP DHL may have a KM strategy, however if this is not shared with the organisational population or utilised effectively to drive business performance that can be evidenced, it will be not be treated as a tangible asset and given the credence it warrants. This approach identified as how best practice organisations approach KM.

9.8.4. Appreciative Inquiry

AI has been repeatedly referenced in the recommendations as supporting a fundamental change in the engagement of colleagues, potentially unlocking discretionary effort. AI has the ability to be applied across a number of areas, including CI, with a high potential for success. The literature evidenced the potential link to EI, and this would form part of further research as to how this could be integrated to drive further improvements. The interaction of AI with corporate programs from 2015 onwards may provide a distinct value differentiator in colleague engagement with the organisation.

The contribution to theory born out of AI is in line with the recommendations made in that; DP DHL should review the potential for AI to be exploited to its fullest potential through a comprehensive review of the value it could bring to performance differentiation for the organisation. The potential to utilise an AI Summit approach to engage with higher numbers of colleagues concurrently should be reviewed; this would also enable new knowledge and experiences to be assimilated leading to the potential for DP DHL to develop a bespoke KM approach to an internal AI program, shared across the organisation.

9.8.5. CI Implementation Scope

The development of criteria for CI implementation at a site has been documented within the recommendations. By addressing this requirement the theoretical contributions is derived through providing an objective set of measures that will provide a transparent, agreed and easy to interpret approach to CI implementation, tangible for all sites that undertake it. This will help drive the optimum opportunities for cost vs. overall benefit ensuring available time and resource are used efficiently whilst driving colleague engagement.

9.8.6. Organisational Learning

OL is repeatedly quoted within the literature as an enabler for driving employee engagement with their respective organisations and CI is closely tied to this in innovative, forward thinking organisations. An OL approach to learning affords the possibility to have higher quality learning experiences, facilitating increased potential

for absorption, use and passing on of the learning experience to other colleagues and the organisation leading to a more positive outcome than possible by other means.

It would be in the interests of DP DHL to compete a small-scale study to ascertain the level of OL approach that a cross-section of employees identifies with the organisation. The outputs from this would drive an as yet unknown work stream developing a fresh approach to colleague engagement. The corporate CSCS program will support this, however approaching in the above manner may support refinement of a pilot program to optimise delivery, before full roll-out takes place.

9.9. CONTRIBUTIONS TO PRACTICE

9.9.1. Change Management

The DP DHL ACT change management training program is an excellent way to promote the move from a task oriented to a people (culture) approach for project management and implementation. This program has a relatively small number of bronze level change agent champions compared to the size of the organisation and a very small number at Gold Level. It is proposed that each site of over 100 employees has a change agent champion at Bronze Level minimum who is afforded the time to complete change management projects at a rate of two per annum minimum.

This would initiate the culture change process at sites that have no appreciation of change management and are presently in a more control and command approach to colleague performance management. To enable this to provide the highest potential for success the present ACT training program should be reviewed with an expectation to include the elements of EI and AI to '*force*' the attendees away from task towards people and culture orientation in their approach to leadership and management.

9.9.2. CI Implementation Presentation – Internal Leadership

A CI implementation presentation was presented to the DP DHL VP Global Operations Excellence and European VP for SHEQ for DP DHL, following a formal request. (See Appendix 7 for unabridged copy).

9.9.3. Maturity of DP DHL - CI Culture

The semi-structured interviews concluded that DP DHL are highly task-oriented, looking to financial KPI's as the over-arching method of capturing business success. Colleague engagement is measured to an extent within the EOS process, however the targeting of questions needs to be improved if real value is to be obtained. The researcher proposes that a CI implementation questionnaire is formulated targeting four levels of colleagues, as identified in the recommendations, to drive clarity and validity of responses leading to a clearer and more objective understanding of where DP DHL CI implementation (culture) is positioned. The process would be piloted to allow a level of audit and refinement to take place prior to wider roll-out.

9.9.4. Benchmarking

Whilst the researcher has extensive experience working with CI implementation it was not possible to visit sites of competitors within the logistics / supply chain to benchmark directly as trust, identified repeatedly within the literature and interviews appears lacking. Toyota have welcomed other organisations into their operations for a number of decades and this supports a level of '*Best Practice*' sharing that can be mutually beneficial.

Similarly in the UK, the manufacturing sector '*Best Factory of the Year*' award winners celebrate their success by opening their doors to showcase what they have achieved. The researcher was privileged to visit the 2013 award winner and brought back a number of ideas to share with colleagues. By example, the DP DHL Sainsbury's sites are presently forming a small-scale CI / PI Networking Group (PING) across several sites to drive the CI culture agenda. When this has proven its worth the process should be shared across the wider DP DHL network.

If it was conceived as acceptable through mutual trust; to include one of the competitor 3PL providers for Sainsbury's, we would be able to draw on each other's experiences and be reciprocally stronger for it. When this type of activity is possible, through trust and professional integrity, the CI culture would be an embedded, BAU activity.

The contribution developed here is that site management of the organisation should review the opportunity to forge meaningful relationship with peer organisations, by size, scope and locality. This to be based upon trust; sharing respective best practice opportunities, '*what keeps them awake at night*' and look for ways to collaborate for

mutual benefit. This would facilitate a positive contribution to our respective businesses in the face of on-going cost reduction expectations from all customers.

9.9.5. Organisational Support to CI Community

Whilst the literature review suggest a number of areas that colleagues have to embrace to work effectively with their organisation, including a re-balance of skill-sets. There are expectations place upon an organisation that has a desire to implement a CI culture, these are detailed within the recommendations.

9.10. LIMITATIONS OF THE RESEARCH

The design of the research was undertaken in such a manner as to maximise the value of the information gathering processes through the literature review and semi-structured interviews. The literature review was far reaching in scope, however it could not cover all the potential areas affecting CI implementation as this would have made the range of research too wide, diluting the depth of examination into specific areas identified. The qualitative data gathered through semi-structured interviews is by definition, reliant on experiential, subjective data and as such the level of rigour attached to outcomes is open to questioning and interpretation.

A conscious decision was made to focus the semi-structured interview process on DP DHL employees rather than include an external cohort of interviewees. This was due to the fact that a number of primary objectives of the thesis were tied into providing outputs relating to DP DHL rather than focusing on wider, general CI perspectives. Whilst this formed the original approach to the thesis research and semi-structured interviews it is evident that a number of the conclusions drawn and recommendations offered would be of value to external CI communities interested in improving their ability to implement CI programs successfully.

A high level of neutrality through the interview process was maintained, allowing the interviewees to express their opinions without any form of coercion taking place. The evaluation of who to interview, whilst being based on the fact that they all had some level of affinity to CI, were confirmed as the interview process progressed. It is accepted that there was potential for bias in the population and that a more random selection of interviewees would potentially have provided a wider perspective.

The group were chosen based upon the rationale that they would provide an objective contribution, not because they would all be aligned and agree with specific areas discussed. The intent of the interview process was to understand where DP DHL position themselves from a CI implementation perspective and discuss the wide scope of areas that could potentially influence it.

This was achieved to a comprehensive level, however three observations are offered; firstly the target audience for the interviews were from specifically from the Retail Division of the business rather than the whole organisation. Secondly the audience all had a level of affinity to the ethos of DP DHL supporting a CI culture; hence they may have provided a more positive perspective than others. Whilst this could be limiting the validity of responses received, the candid comments, contrasting viewpoints in a number of areas and relatively low quantitative scores through the interview process suggest objective perspectives were provided by the interview population. Thirdly, they were all from the management population rather than a mix of shop-floor colleagues and managers across sites.

The potential to include a number of shop-floor colleagues for the primary data gathering process was reviewed, however following reflection it was felt that the ability to select colleagues from this large group who would be able to relate to the specific detail of the interview questions asked may prove difficult. Furthermore a number of the areas discussed related directly to the shop-floor and FLM level and above. It was not known how colleagues might approach this or whether they would be comfortable with the context. Those that showed genuine interest and volunteered would likely be from the '*converted*' population of CI advocates, whilst others may not have felt at ease to be interviewed by a manager for a period between sixty to ninety minutes. A recommendation is offered in support of a wider information gathering process for understanding CI within the scope of the FCW Change program.

9.11. FURTHER RESEARCH

At commencement of the literature review the researcher recognised the depth and variation of the potential areas to research may become problematic and the topics eventually researched to a greater depth were selected by having a level of linkage to at least one other area. Additionally to this outputs from the semi-structured interviews identified new areas that required further research outside the scope of the thesis to develop a greater theoretical understanding.

Whilst the relationship between OL and CI is well documented the relationship between OL and KM was not identified to the same clarity from the research undertaken. There are also links between KM and innovation that are recognised in published literature and the researcher believes these areas of synergy could provide further benefit to the organisation if they were to be researched to a greater depth, looking for business differentiating opportunities.

A link between CI / PI and innovation is evident and this is better understood from respondent feedback and the literature review, however the jump from CI to innovation and how this is initiated and sustained warrants a more in-depth review. This would facilitate greater participation in innovation workshops supporting new business opportunities for new and existing customers. How this could be actioned requires formal debate with teams from different areas, including Operations Excellence, CI / PI, business development and potentially the internal consultancy '*In-House Consulting*' operating out of Bonn.

The use of models such as Johari Window and Batari Box to support a more positive understanding and approach to engagement between colleagues may provide benefits in relationship management. This can be particularly useful when the pressure to perform is high and relationships may be strained. Taking a step back through reflection and understanding where we are will likely reduce the potential for conflict and increase the possibility to work cohesively through difficult challenges.

The use of AI is identified as a potential differentiator for DP DHL and the external CI community. This would be an area to spend significant resource and time to develop further through undertaking a wider scope of research, targeting the potential to utilise an AI Summit approach to engage with a higher number of colleagues concurrently. How AI could integrate with the CSCS program is a primary focus, however this would require senior leadership sponsorship to progress.

9.12. SUMMARY

This chapter draws the thesis to a natural conclusion, detailing a number of conclusions, recommendations and contributions to theory and practice in line with the original objectives and outputs from the literature review and semi-structured interviews. The scope of the literature review, coupled with the complexity of an organisation the size and diversity of DP DHL led to wide-ranging conclusions and recommendations being reached. The primary contribution of the thesis was the

creation of a CI Implementation Model (see Chapter 7) based upon an amalgam of empirical data and the reflective practice elements of the thesis.

The thesis provided numerous avenues to explore with reference to improving CI implementation, honing in on organisation and individual traits (cultural elements) rather than CI tools and techniques. This was driven by the identified importance of having an OL approach to CI implementation, identified as a symbiotic relationship in successful organisations. The objectives of the study were appraised from a theoretical standpoint supported by empirical data. Where objectives could not be fully satisfied from the literature review or semi-structured interview, the perceived gaps in available literature may provide the possibility to undertake further study.

The potential to affect CI implementation positively falls into the auspices of many areas, some individual, many others inextricably linked with positive benefits across complimentary fields. There are too many to utilise '*en masse*' and not all would be deemed relevant; the intent was to provide a comprehensive record of potential areas of improvement that could be selected on merit for a particular requirement.

The embedding of a CI cultural approach, particularly at the operational level of an organisation is critical to drive performance in line with customer expectations. Applying appropriate strategies to provide customer value is not simply about the numbers, it is about appropriate, targeted communication and engagement. Evidence from customer feedback suggests that DP DHL failed to do this effectively in relation to very positive CI cost benefit. The sobering thought is that DP DHL could potentially lose customers to competitors when they are actually providing bottom-line benefits to them; this occurring if they do not reverse the negative perception of the current CI culture they have with their customers.

The significance of achieving the optimum blend between tools, techniques and traits for successful CI implementation remains a subjective point; however what the research has informed is that a balance between them all, based on an OL approach to colleague / organisation relationships and engagement is required in order to succeed.

As I reflect on the thesis I leave the reader with a simple message that sums up where I feel DP DHL are presently:

"We have all the ingredients to bake our CI cake; maybe we just need to do a little more work on the quality and availability of the ingredients, understand how much milk to add to the eggs and what temperature to set the oven on to create the best appearance, flavour and texture" (Author's Own, 2015).

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Appendix 1 – Glossary of terms

Summary: This appendix provides a glossary of terms used within this thesis.

Glossary of terms

CAPA: Corrective and Preventative Action: a process using root cause analysis tools and the 8D methodology to identify the true root cause of an issue and put in measures to remove or minimise that root cause.

Design of Experiments: is a technique to optimise a process or product. It is based upon a systematic method to determine the relationship between factors affecting a process and the output of that process, it is used to find cause-and-effect relationships.

Dialectic: the critical discussion of a particular subject in a focus group, including a critical stance to question established authorities, knowledge and experiences affording the generation of new knowledge.

Dichotomy: is the division of theories, knowledge, or elements into more than one group, segregated by conflicting values or factors.

DMAIC: Define, Measure, Analyse, Improve and Control. A cycle of activity that promotes a data driven approach to improving processes. This method is used as a framework for both Six Sigma and Lean Six Sigma.

Empathy: use of the imagination to enable sensitive perception of others' perspectives.

Epistemology: the nature and theory of knowledge.

Explicit: the knowledge that is described, articulated and shared through media including books, documents, written instructions and procedures.

FMEA: Failure Mode Effect Analysis. A system that allows the analysis of the potential failure scenarios of each element in a given process. This allows the root causes of potential failures to be mitigated/eliminated and therefore reduce overall risk.

Information System: an integrated system of elements comprising of hardware and software for managing, storing and communicating information.

JIT: Just in Time. A method of production/manufacturing which seeks to minimise in-progress inventory by aligning production against demand.

Kinaesthetic: according to the theory of learning styles, students who have a predominantly kinaesthetic style are thought to be discovery learners: they have realisation through doing, rather than thinking before initiating action. They may struggle to learn by reading or listening.

Lean / Lean Manufacturing: an outgrowth of the Toyota Manufacturing System that aims to reduce waste within a process. This is done by eliminating pure waste activity, minimising value enabling activity and maximising value adding activity.

Lean Six Sigma: a hybrid set of tools and processes used in process improvement that combines elements of Six Sigma with Lean Manufacturing to reduce waste and variation within a process.

Metaphor: a figure of speech in which something otherwise unrelated stands in place of another.

Methodology: the study of a set of methods, principles and philosophies governing a particular discipline, governing the process of how we gain knowledge of the world.

Models: representations of the relationships between theoretical principles which underlie practice.

Narrative: an account given to describe or explain an event.

Ontology: the nature of the entities of reality and beliefs from a specific standpoint.

Original Equipment Manufacturer: is a broad term whose meaning has evolved over time. Historically, OEM referred to the company that originally built a given product, which was then sold to other companies to rebrand and resell. The more recent definition is that of a company that buys a product and incorporates or re-brands it into a new product under its own name.

Paradigm: the pattern and system of defining and matching the epistemology, ontology and methodology to suit a particular research subject or meta-physical perspective (Denzin and Lincoln, 1994).

PDCA: Plan Do Check Act. Also known as the Deming Cycle. A 4 step process used within business in continuous improvement and quality management.

Perspective: how things appear from a specific viewpoint.

Principles: general laws or rules adopted or professed to guide action.

Professional: one who has authority arising from training, education and experience in a field.

Reflection: in-depth focused attention.

Reflective practice: the development of insight and practice through critical attention to practical values, theories, principles, assumptions and the relationship between theory and practice which inform everyday actions.

Reflexivity: focused in-depth reflection upon one's own perspective, values and assumptions through double-loop learning. It is the putting into action and continuing development of reflections (Bolton, 2014).

Rigour: the strength of judgement and strictness in discipline of developing conclusions.

Six Sigma: a process improvement methodology that aims to reduce defects and variability within a process.

Subject Matter Experts: the high credibility leaders in a particular field, having specialist skills, knowledge and experience.

Tacit: experiential based knowledge that one holds personally; this can be articulated into explicit codified knowledge through knowledge sharing activities, communication and use of appropriate media.

TPM: Total Productive Maintenance. A system by which maintenance of plant and machinery is managed to maximise “up” time and productivity.

TQM: Total Quality Management. An approach to quality management and the continuous improvement of products and services to customers.

UK-SPEC: *“The UK Standard for Professional Engineering Competence (UK-SPEC) describes the value of becoming registered as an Engineering Technician (EngTech), Incorporated Engineer (IEng) or Chartered Engineer (CEng). It describes the requirements that have to be met in order to gain these qualifications, and gives examples of ways of doing this”* (Engineering Council, 2015).

Validity: the level of quality and representation of having a quality and applicable argument (Denzin and Lincoln, 1994).

Values: the ethical bases of actions and beliefs, requiring no justification (Bolton, 2014).

Appendix 2 – Chartership

Summary: This appendix provides a summary of the route the author took to Chartered Engineer status.

Supporting documents include:

- IEng Professional Registration Certification
- CEng Professional Registration Certification



Established for the promotion and development
of the knowledge and best practice of engineering

This is to certify that

Lee Wood

in membership of

Institution of Incorporated Engineers

has been registered by the Engineering Council (UK) and is hereby authorised
to use the style or title of

Incorporated Engineer

Chairman

Director General

Date of Registration 18 August 2003

Date of issue 18 August 2003

Registration No. 543484

This certificate is the property of the Engineering Council (UK)
Returnable on request or de-registration



Established for the promotion and development
of the knowledge and best practice of engineering

This is to certify that

Lee Alexander Wood

in membership of the

Institution of Engineering and Technology

has been registered by the Engineering Council and is hereby authorised
to use the style or title of

Chartered Engineer

Chairman

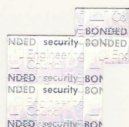
Chief Executive Officer

Date of Registration 01 October 2012

Date of Issue 02 October 2012

Registration No. **543484**

This certificate is the property of the Engineering Council
Returnable on request or de-registration



Appendix 3 – Reflective Practice #1

Summary: This appendix provides supporting documents relating to reflective practice #1: Electrical Infrastructure Project.

Supporting documents include:

- Planned Electrical Infrastructure Project Memorandum
- Facsimile to Barry Stone (HV Isolations)
- Essential High Voltage / Low Voltage Electrical Maintenance Memorandum
- High Voltage Essential Maintenance Outage Summary Overview
- HV/LV Millennium Outage Plan
- Pre-Project Preparation Work
- Commendation

Memorandum

FORT JAMES UK LIMITED

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Papermaking Division

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*Stubbins
Ramsbottom*

Lane

Bury BLO 0NH

UNITED KINGDOM

Date: 13-SEP-99

To: J.BARON

Cc: B.HUDSON

From: L.WOOD

Subject: PLANNED ELECTRICAL INFRASTRUCTURE PROJECT

Jackie,

With reference to our recent conversations regarding the need to carry out essential electrical maintenance please find enclosed a detailed description of reasoning behind, current works identified and expected effect on production plant. For clarity I have also enclosed flowcharts detailing each areas proposed activity and a summary of works identified, some tasks can be completed simultaneously, dependent on availability of necessary skilled internal and external staff.

Historically the pressure of production at the mill has, I am led to believe, put us in a position where essential maintenance of switchgear, such as No.3 Sub on the H.V.side and Essential Services board on the L.V. side respectively has never been carried out. We are in a position where non-compliance with regular checks of said equipment is not an option and I have put together a program of works for your consideration. Affected areas of plant cause either partial or total loss of the mill production equipment and require considerable downtime to complete. The mill has developed considerably in the last 10 years and from an electrical point of view this has put us in an awkward position whereby all available sources of supplies have been utilised fully at every opportunity for differing areas of new and existing equipment. The knock on from this is that isolation of certain electrical switchboards causes major site-wide problems for plant, rather than local disruption.

This is not an exhaustive list of future essential electrical maintenance, however it does take into account areas where our records, or lack of, intimate that testing, inspection, modification or uprating are required as soon as is reasonably practicable.

Possible target dates of 30/12/99 and/or 31/12/99 will be difficult regarding specialist contract companies we use and are confident in, as they have all expressed the view that they are not intending to work on the above dates. I shall continue attempts to resolve this problem, due notice of our commitment to take the outage may assist in persuading companies to provide necessary manpower and equipment.

HIGH VOLTAGE WORK

- 1) **Replacement of OCB feeding T11 (MMCC 14 PPP1)** - the breaker in question is unfortunately under a SOP, suspension of operation practice (See Attached documentation). To comply with H & S legislation regarding this issue certain checks e.g. Primary wipe contact check must be carried out before replacement and energisation of new breaker can take place. This necessitates a total shut down of No.3 Sub for a period up to six hours. Discussions on site reveal no previous maintenance/visual checks to No.3 Sub busbar chambers have taken place, with this in mind it would be prudent to carry out all required checks whilst board down. Affect on production plant will be PM1, PM2 and PPP1 for the duration.
- 2) **Inspection of No.1 Sub Busbar chambers and associated equipment - .**
This necessitates a shut down of No.1 Sub for a period up to four hours. Discussions on site reveal no previous maintenance/visual checks to No.1 Sub busbar chambers have taken place for considerable time, no records available. Affect on production plant will be PM1, PM2 and PPP1 for the duration. Low voltage feeds from this sub include warehouse lighting and power and supply to electric sprinkler pump. May be possible to plan around PPP1 and PM2 shut and feed No.2 sub from No.3 sub to keep PM1 running, however with recent changes to pulp on PM3 critical planning versus product run will be required as board also supplies No.4 and No.5 Pulpers. Ancillary equipment affected includes; Evans lift, PPP1 wet lab, P.C., office block and canteen.
- 3) **Inspection of No.2 Sub Busbar chambers and associated equipment - .**
This necessitates a shut down of No.2 Sub for a period up to four hours. Discussions on site reveal no previous maintenance/visual checks to No.2 Sub busbar chambers have taken place for considerable time, no records available. The supply to this sub is from No.1 sub and logistically it would be prudent to carry out essential maintenance whilst No.1 sub is down. There will be interruption to half of essential services board to facilitate *bussing up* of essential services board before and after works. This will affect boilers and compressors for short duration, it may be possible to keep PM2 and PM3 machines running, albeit down the pit, whilst steam pressure and air pressure recover. Affect on production plant will be PM1 for the duration.
- 4) **Inspection of No.4 Sub Busbar chambers and associated equipment - .**
This necessitates a shut down of No.4 Sub for a period up to eight hours. Discussions on site reveal no previous maintenance/visual checks to No.4 Sub busbar chambers have taken place since project completion 1992.no

records available. There are three feeds to the bus sections of this board and it may be acceptable from the H & S stance to isolate each in turn, I am in contact with ABB regarding technical requirements of required works. Affect on production plant will be PM3 and PPP2 for the duration, will also affect lighting and small power availability in above areas. Polymer to PP1 will also be affected as will the DEVE lift. Other areas include; Soap to PPP1, hibrite, stores area, stores P.C.'s and warehouse P.C.'s.

- 5) **Inspection of 11KV Ring Main Unit** - This necessitates a shut down of Ring Main Unit for a period up to four hours. Discussions on site reveal no previous maintenance/visual checks to Ring Main Unit have taken place since project completion 1992.no records available. Also supplies half of No.3 sub affecting production plant PM2, PPP1 and MMCC 40 feeding Secondary Effluent, Wendy house and Gatehouse for the duration.

LOW VOLTAGE WORK

- 1) **Project Spring** - Modification of eight affected breakers on site due to "slow" tripping of protection caused by ageing of components on printed circuit board, fault found when Merlin Gerin testing breakers in France. (see attached document) Six have been completed presently during planned shuts on PM3 and PPP2. The two outstanding breakers are:

- i. Simplex Incomer – Will affect PM1, PM2 and PPP1 for duration of 2 ½ hours maximum.
- ii. MMCC 40 Incomer - Secondary Effluent, Wendy house and Gatehouse for duration of 2 ½ hours maximum.

Supply to Inverters for No.4 & 5 dump chests and Terrasaki board in MMCC 10 will be affected. Production effect is PPP1 and possibly PM1/2 depending on product run.

- 2) **Essential Services** – No visual inspection/maintenance to busbars, incomer breakers and most outgoing circuits since installation. Will affect all areas of plant due to boilers, compressors etc feeding off either side. With *bussing up* it will be possible to keep disruption to a minimum, however inspection of bus section will require full isolation, difficult to guarantee adequate supplies to machines whilst carrying out this maintenance.

- 3) **Simplex Board**– Following recent audit of Simplex panels the following issues require resolving ASAP:

- i. Switch fuses isolating mechanism require repairs.
- ii. Faulty isolator – not currently required, requires replacement for future use. (New supply feed for PM3 AHU)

Required outage of above works would be in the order of 5 hours (two teams).

Possible modification to feed supplying PM3 AHU from simplex (see ii above) – 2 hours downtime required to complete.

- 4) **Terrasaki Board** – Old boiler house supply has never been checked, will affect Boilers No. 1 & 2. Could be possible on run if steam demand low due to one planned machine shut.
- 5) **MEM Board Ess. Services** – has never been visually checked will affect PM1, PPP1 and lighting distribution old mill areas. We have a requirement to fit new breakers in this board for future utilisation and redundancy supply for site computer networks installed recently.
- 6) **Terrasaki Board** – Compressor house, has never been visually checked, will affect three compressors. Could be possible on run if air demand low due to one planned machine shut and two diesel/electrical portable generation units available.
- 7) **SS2** – There are no spare supplies wired from busbars to spare motor control cubicles and isolation panels. Currently we will **never** have an opportunity to carry out this work due to affected power supplies feeding lighting and power in the PM3 machine house.
- 8) **SS1** – There are no spare supplies wired from busbars to spare motor control cubicles and isolation panels. Currently we will **never** have an opportunity to carry out this work due to affected power supplies feeding lighting and power in all PPP2 areas.
- 9) **Terrasaki Board** – MMCC 10/11, has never been visually checked, will affect PPP1.

All the above works will require a great deal of planning/detailing to take through to fruition, in some instances it will be possible to complete more than one task on a particular shutdown. There will be health and safety issues regarding for example, lighting, which we will manage at the final planning stage.

Regards

Lee Wood
Senior Electrical Engineer

F a c s i m i l e

283000
283001

FORT JAMES UK LIMITED *Tel:01706*
Papermaking Division *Fax:01706*
Stubbins Lane
Ramsbottom
Bury Blo 0NH
UNITED KINGDOM

DATE: 11/9/99
TO: BARRY STONE LOCATION: NORWEB
FAX: 0161 745 4363
FROM: LEE WOOD

Total number of pages (including this cover): 1

MESSAGE:

Barry,

With regard to recent Tel. conversation please find enclosed details of the mill's requirement of a control engineer to be available for isolation and de-isolation of your six feeds into the mill to allow essential works to be completed.

Date	Time	Task
30/12/99	Between 20.00hrs to 22.30hrs – exact time to be agreed with your C. Engineer.	Isolation of 3 Fort James feeds Namely 3, 7 and 1.
31/12/99	Between 06.30hrs to 08.30hrs – exact time to be agreed with your C. Engineer	De-isolation of feeds 3, 7 and 1. Isolation of feeds 4A, 4b, & 4C
31/12/99	Between 17.00hrs to 19.00hrs – exact time to be agreed with your C. Engineer	De-isolation of feeds 4A, 4b, & 4C

I will contact you Monday 15th to arrange time for site visit.

Regards,

Lee Wood
Senior Electrical Engineer

Memorandum

*FORT JAMES UK LIMITED
Papermaking Division
Stubbins Lane
Ramsbottom
Bury BLO 0NH
UNITED KINGDOM*

*Tel: 01706 283000
Fax: 01706 283001*

Date: 27/06/99

To: J.BARON Mill Manager

CC: B.HUDSON Chief Engineer

From: L.WOOD Senior Electrical Engineer

Subject: ESSENTIAL HIGH VOLTAGE / LOW VOLTAGE ELECTRICAL MAINTENANCE

PROBLEM Because the mill has never taken full site shutdowns, it has not been possible to carry out mandatory inspections and maintenance specific to certain 11KV, 3.3KV and low voltage distribution systems. We are in contravention of BS codes of practise 5463, 6423, and 6626 respectively with regards to H.V. equipment and The 1989 Electricity at Work Regulations, with regard to L.V equipment. Required checks, following best practise of Regional Electricity Companies (R.E.C.s) 8 years cycle and 5 years maximum Factory Mutual Insurers recommendation, to prove regular inspection and maintenance, have never been carried out. This problem is made worse as various items of our switchgear; particularly OCB's & Oil switches are reaching obsolescence and require replacement as soon as the business can make money available. In the mean time they must be carefully maintained to guarantee safe, continued operation.

OPPORTUNITY The proposed closure over the New Year period could allow us to complete all required works and bring us up to date. This would remove current non-compliance's and allow us to formalise a plan for all future H.V and L.V. maintenance requirements from a level playing field. All works will require a great deal of planning/detailing to take through to fruition, in some instances it is possible to complete tasks simultaneously. There will be health, safety and environmental issues regarding for example, lighting, which we will manage at the final planning stage. Following information details required works and effects on mill production

HIGH VOLTAGE WORK REQUIRING TOTAL MILL SHUTDOWN

Inspection of No.2 Sub Busbar chambers and associated equipment - This necessitates a shut down of No.2 Sub for a period up to four hours. This will affect boilers and compressors for short duration due to feeding half of essential services board affecting all production plant. Affect on production thereafter will be PM1.

Inspection of 11KV Ring Main Unit - This necessitates a shut down of Ring Main Unit for a period up to four hours. Supplies half of No.3 sub affecting all production plant due to feeding half of essential services board. Affect on production plant will be PM2, PPP1 and MMCC 40 feeding Secondary Effluent, Wendy house and Gatehouse for the duration.

Replacement of OCB feeding T11 (MMCC 14 PPP1) - Affects on production plant will be PM1, PM2 and PPP1 for the duration of 6 hours. Short-term effect on all production plant due to feeding half of essential services board.

Inspection of No.3 Sub Busbar chambers and associated equipment - This necessitates a shut down of No.3 Sub for a period up to 6 hours. Affects all production plant for short duration due to feeding half of essential services board and affects PM1, PM2 and PPP1 for the duration.

HIGH VOLTAGE WORK REQUIRING PARTIAL MILL SHUTDOWN

Inspection of No.4 Sub Busbar chambers and associated equipment - This necessitates a shut down of No.4 Sub for a period up to twelve hours. I am in contact with ABB regarding technical requirements of required works. Affect on production plant will be PM3, PPP2 and Tank farm for the duration.

LOW VOLTAGE WORK REQUIRING TOTAL MILL SHUTDOWN

Essential Services – Will affect all areas of plant due to boilers, compressors etc. feeding off either side. Duration for necessary checks is 4 hours maximum.

LOW VOLTAGE WORK REQUIRING PARTIAL MILL SHUTDOWN

Simplex Incomer – Will affect PM1, PM2 and PPP1 for duration of 2 ½ hours maximum.

MMCC 40 Incomer - Secondary Effluent, Wendy house and Gatehouse for duration of 2 ½ hours maximum.
Production effect is PPP1 and possibly PM1/2 depending on product run.

Simplex Board– Following recent safety audit of Simplex panels two isolators require replacement, duration 3 hours total- two teams.

Terrasaki Board – Old boiler house supply, will affect Boilers No.1 & 2 for 2 hours, steam demand of site will determine knock-on affect to production plant.

MEM Board Essential. Services – Will affect PM1, PPP1 and lighting distribution old mill areas. We have a requirement to fit new breakers in this board for future utilisation.

Terrasaki Board – Compressor house, will affect three compressors for two hours. Will affect all production areas. (May be possible on the run if two hired compressors could be used simultaneously).

SS2 – There are no spare supplies wired from busbars to spare motor control cubicles and isolation panels. Currently we will never have an opportunity to carry out this work due to affected power supplies feeding lighting and power in PM3 machine house.

Terrasaki Board – MMCC 10/11, will affect PPP1.

COST Estimated cost for completion of these works is £25,000.00

RISK OF NONE COMPLIANCE

The company is at risk of prosecution under The 1989 Electricity at Work Regulations for failing to carry out statutory inspections and regular maintenance. More importantly a major failure in the ageing distribution system would be simply catastrophic to property, fire and risk to life and limb. Not only would such a failure be extremely disruptive, an investigation would show failure to carry out essential maintenance/inspections and would lay the organisation open to significant prosecution.

Regards

Lee Wood
Senior Electrical Engineer

Fort James – Stubbins Paper Mill

High Voltage Essential Maintenance Outage

L.Wood ~ 31 December 1999

Summary

The mill's electrical infrastructure is complex with a typical running load in excess of 20MVA. (See Appendix 1). This is supplied from Utility Company primary feeders at 33KV with the site distribution at 11KV through four High voltage substations, twenty one transformers oil and resin cast types, distributed around the mill feeding Main Motor Control Centre's (MMCC's) and associated large-scale electrical plant.

Historically Stubbins Paper mill has always been production driven, opportunities to carry out essential maintenance of the High Voltage Distribution systems had been pursued however outage of necessary production plant to facilitate the maintenance requirements had not been forthcoming particularly in areas requiring full site production loss.

Following an internal audit of the Electrical Engineering High Voltage Test and Inspection records it became apparent that the lack of visual inspections, tests, suitable records and preventative maintenance to the system over many years had put the mill in a position where the potential for short/medium term catastrophic equipment failure could not be categorically ruled out. The site distribution network had grown dramatically since conception with strategic systems supplying power affecting all the site production areas; hence certain boards were never available for maintenance. This was viewed as a contributory factor to the historic lack of opportunity to carry out necessary maintenance however this fact in itself did not help resolve the current situation. The lack of records for High Voltage equipment also left the site open to prosecution in the event of a serious accident as no written proof of regular appropriate maintenance was available in most cases as per Electricity at Work regulations 1989.

Guaranteeing personnel safety is of paramount importance as are the mill production assets for future profitability of the site. Considering the infrequent operation of High Voltage Switchgear and that failure of said equipment to operate correctly in a fault condition would be catastrophic, both to people in the vicinity and site assets, it was deemed this situation could not continue and should be resolved in the immediate future.

The issues in question were raised with senior site management in June 1999. Following initial reticence due to the intrusive nature of the project, a positive response and understanding of the issues faced by the Business and the Electrical Engineering

Department was received, at this stage a detailed plan of work requirements was put together for approval. In August 1999 the profile of the project was raised to include the U.K. Manufacturing Director who on receiving details of the site proposals agreed the need to complete said works.

The scope of work required specialised external contract involvement and three preferred contractors for High Voltage Work were invited to tender. The New Year period 1999/2000 was deemed an appropriate time to carry out the work due to production taking a commercial shut to support the project; this caused severe difficulties with obtaining suitably skilled external staff and necessary engineering support from the local REC (Regional Electricity Company) due to the unsociable hours requirement. Fortunately all the issues were resolved by late November 1999 and strategic plans were put together and implemented to protect personnel and site assets throughout the power outage.

The knock-on effect of having the site's 11kV distribution supplies isolated was to release strategic Low voltage boards which had also not received appropriate maintenance for a number of years. Internal Electrical and Instrumentation personnel were utilised to complete this work, together with local preferred electrical contractors and specialist Electrical distribution engineers. Several areas of concern were duly identified and remedial actions taken. The work completed was to budget, on time and included modifications to lighting distribution systems and cable re-routes to assist with future power outages. The work completed was a credit to all involved.

Total planned time-scale for the High Voltage outage was 21 hours from 20.15 hrs 30/12/99 until 17.15 hrs on 31/12/99. This time-scale was aggressive and required all involved to complete respective tasks as per detailed plan (see Appendix 2). Several minor issues were resolved as the programme continued with corrective actions to certain areas being identified for future smaller scale maintenance outages. The project came in 15 minutes early, to budget and with no effect to production plant that had not been identified previously.

Details of High Voltage Work

The scope of work required four separate areas of work to be completed sequentially due to constraints of time and REC Engineer availability. On the night of the 30/12/99 Substations No.1, No.2 and No.3 were to be taken out of service simultaneously. These Substations contain traditional 11kV Switchgear, namely Oil Switches and Oil Circuit Breakers. The switching programs required detailed planning due to the number of tasks to be completed in the same areas and the Substations required five, six and fourteen high Voltage permits respectively. The incoming supplies from the utility company were handed over in a circuit earth condition to protect individuals working on the busbars and oil switches of said boards on site.

The following work schedules were deemed Best Practice to confidently prove the integrity of the equipment before returning to service.

- i) Change mineral oil in all Switchgear regardless of current condition.
- ii) Check condition, clean contact clusters on all breakers.
- iii) Check mechanical integrity of breaker interlocking / switching mechanisms.
- iv) Minimal lubrication of contact clusters as appropriate.

- v) Secondary injection testing of breaker protection equipment.
- vi) Audit of existing settings of protection equipment.
- vii) Ductor testing of busbars where possible.
- viii) High pressure testing of equipment before re-energisation.

Several items of equipment were found to be in an unacceptable state with regard to Oil quality, contact cleanliness and were duly returned to an acceptable standard.

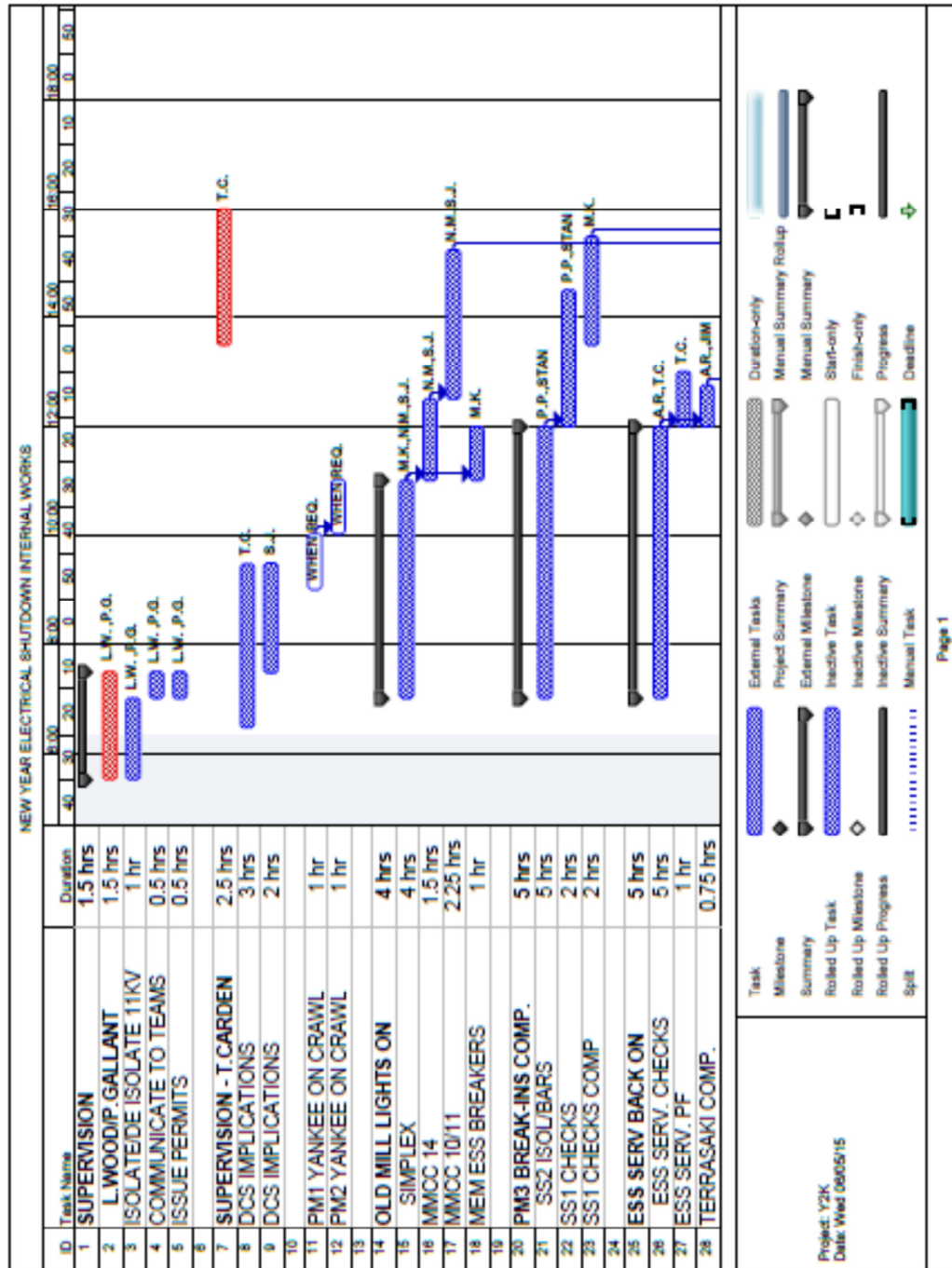
The Oil switches of No.1 and No.2 substations were particularly poor with regard to oil quality and plans to take them out of service again in the next twelve months are in place when necessary plant is taken out of service for a project modification to No.1 substation. The earth protection relay for No.2 substation T13 feeding R/H/S of Essential Services was found at a setting of 1.8times FLC which would have provided very limited protection of equipment. This was duly changed to 0.2 FLC as per sister transformer T12 feeding L/H/S of Essential Services. Reason for incorrect setting unknown, the protection relay used in this instance is a GEC Midos type with small dip switches used to change settings, assumption of incorrect switching by party unknown is only logical solution.

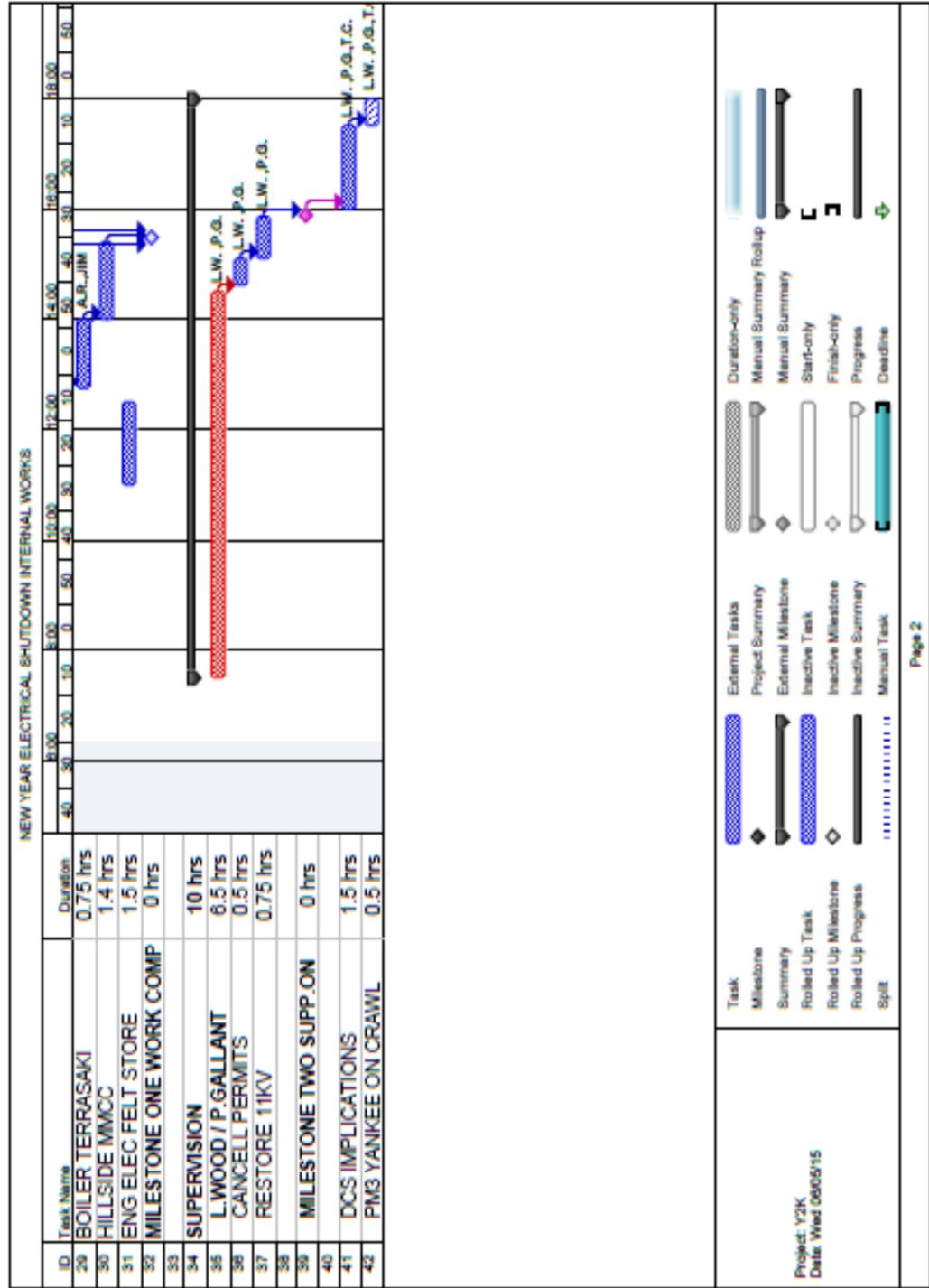
All planned work was completed to schedule and at 06.15 am. on the morning of 31/12/99 all active 11kV permits were signed off, cancelled and the next stage of the project commenced. The changeover required the re-instatement of the three supplies feeding Nos. 1, 2 and 3 Substations and the isolation, circuit earthing, of the three supplies feeding No.4 Substation. This board feeds the two newer mill areas namely PM3 and PP2 and had not had any internal inspections carried out since commissioning in 1992. This system comprises of three infeeds and seven outgoing circuits, the breakers on this board are SF6 and the feeds from the utility company had never been out of service from commissioning again in 1992.

The following work schedules were deemed Best Practice to confidently prove the integrity of the equipment before returning to service.

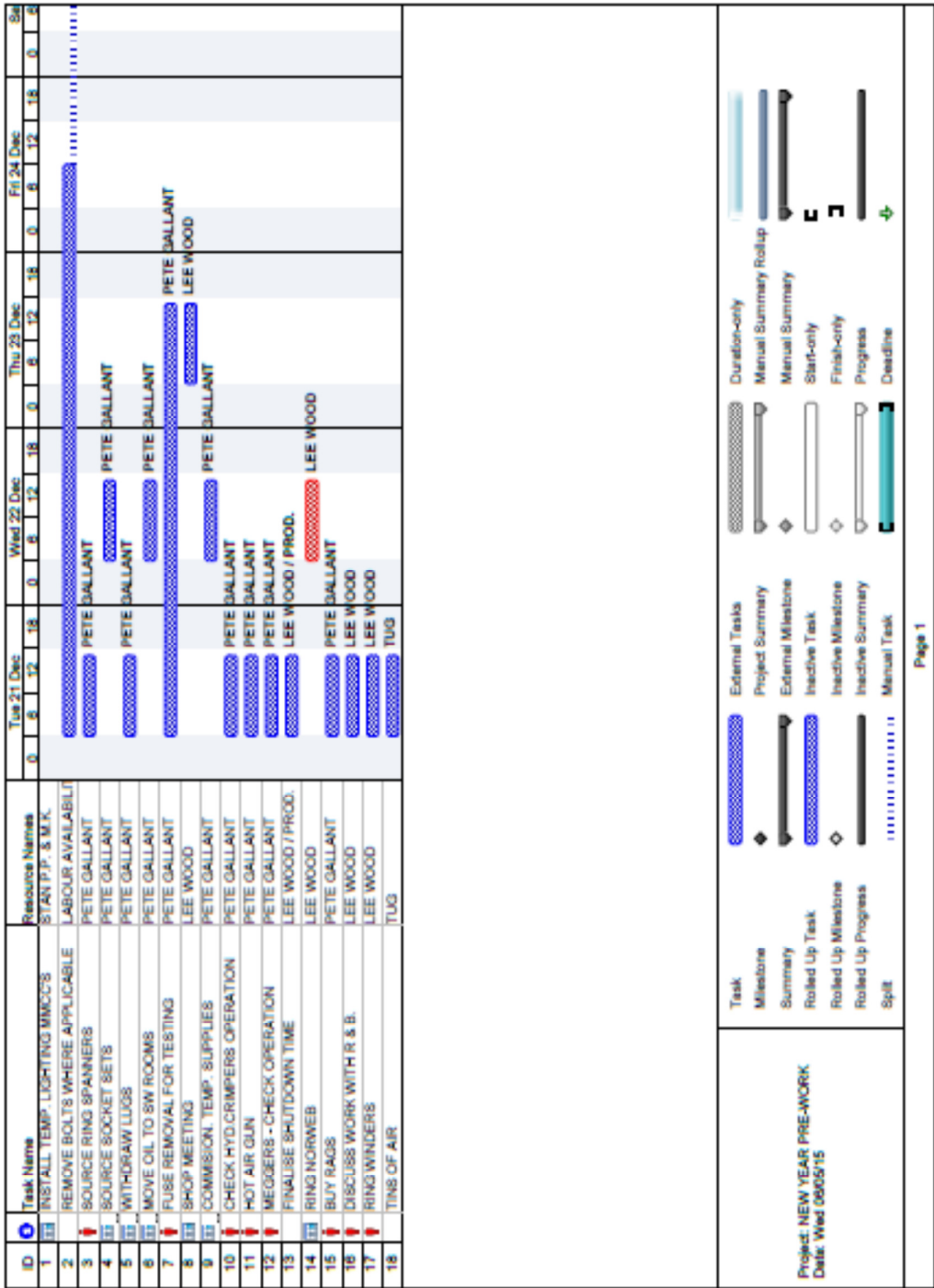
- i) Check SF6 gas level indicator for correct indication
- ii) Check condition, clean contact clusters on all breakers.
- iii) Check mechanical integrity of breaker interlocking / switching mechanisms.
- iv) Minimal lubrication of contact clusters as appropriate.
- v) Secondary injection testing of breaker protection equipment.
- vi) Audit of protection equipment settings.
- vii) Ductor testing of busbars where possible.
- viii) High pressure testing of equipment before re-energisation.


The busbar sections of the board were found to be very dusty, a culmination of what was thought to be concrete dust and general dust had accumulated in many areas and was duly removed by an industrial vacuum cleaner. One breaker CB09 Feeding T35 had a nut and bolt missing from the busbar shutter assembly which had resulted in twisting of the mechanism at some unknown previous racking in and out of the breaker. This may have been from commissioning time but there is no evidence to suggest either way. An exhaustive search for the offending nut and bolt proved fruitless and a suitable replacement from an unused cubicle was utilised, this has now been replaced with a suitable nut and bolt of same specification - material, size and dimensions to existing.





Pre-Project Preparation Work





FORT JAMES

FORT JAMES UK LIMITED
Stubbins Lane
Ramsbottom
Lancs BL0 0NH

Tel: 01706 283000
Fax: 01706 283001

12th January 2000

Lee Wood
25 Raylees
Ramsbottom
Bury
BL0 9HW

Dear Lee,

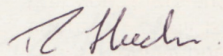
COMMENDATION

I am writing to commend you particularly for the work executed over the millennium holiday period. The fact that it has been outstanding for several decades underlines the difficulty in organising the work. That it was carried out successfully, safely, to time and budget is a testimony to the attention to detail, planning, communication and on- site control that you personally put into this work. I well understand that this was a team effort and credit is due to all members of your team, but it is also true that your team succeeded because of your drive and leadership.

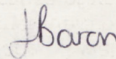
Your success in the 11KV maintenance stands out, and it is a reflection of the general level of work and commitment you have shown on all issues you have faced throughout the year.

On behalf of Fort James, I would like to take this opportunity to commend you for your achievements and thank you for your dedication and efforts.

Yours sincerely,



R. Hudson



J. Baron

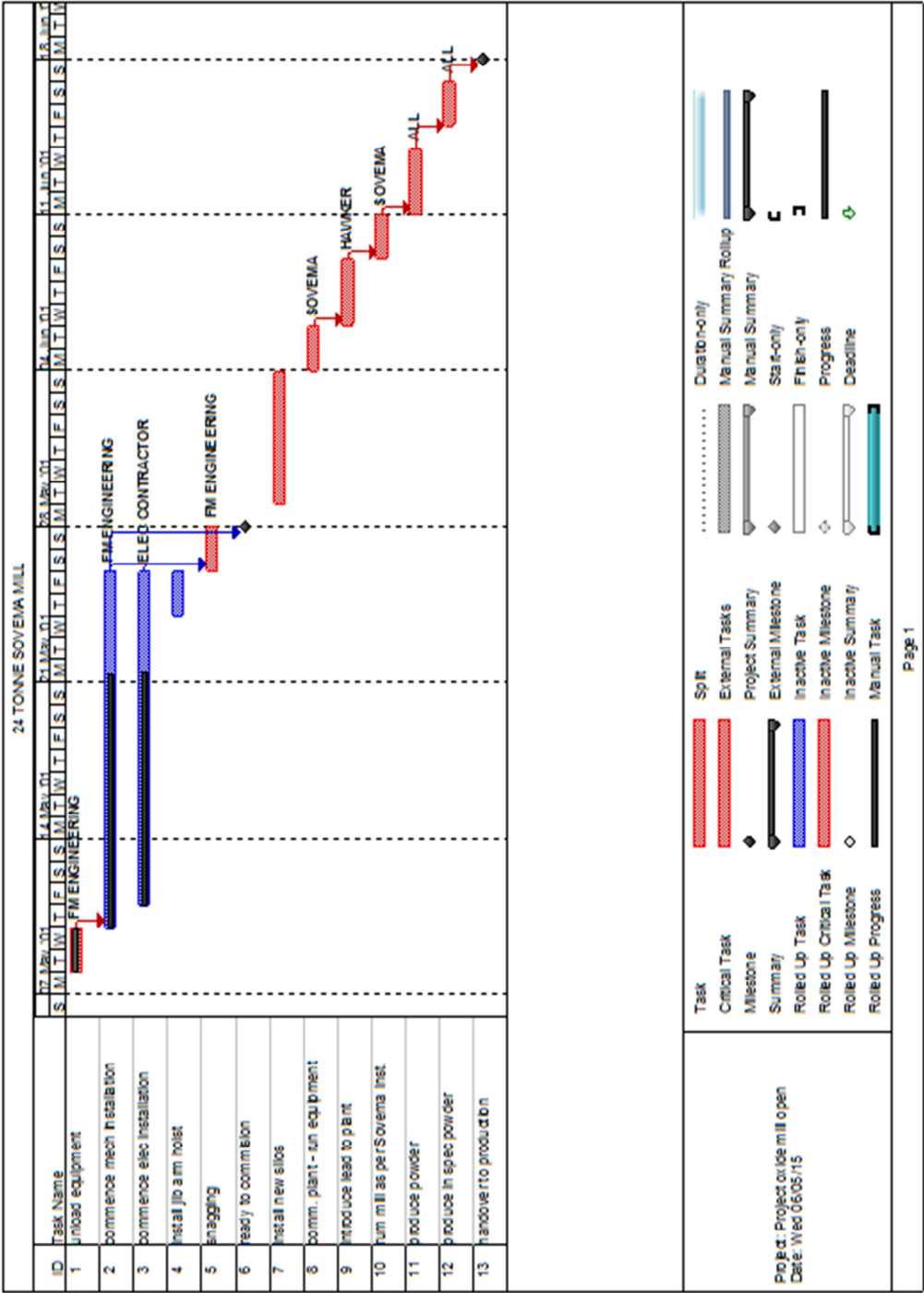
Appendix 4 – Reflective Practice #2

Summary: This appendix provides supporting documents relating to reflective practice #2: Lead Oxide Mill.

Supporting documents include:

- Lead Oxide Mill Installation Plan
- Memo re: New Oxide Mill Installation
- Meeting Minutes: 24 Tonne Oxide Mill Meeting 21/11/2000
- Oxide Mill Process Flow
- Email Correspondence re: Emotional Intelligence
- Email Correspondence re: Evidence of Practice
- Supporting letter Re: Evidence of Practice

Lead Oxide Mill Installation Plan



24 TONNE OXIDE MILL MEETING 21/11/2000

PRESENT: L. WOOD; B. HUDSON; E. THOMPSON; G. BARNES; B. LEVER; G. PHELAN; D. MCDERMOT

The meeting opened with a discussion of all salient points relating to the installation and running of the new mill. It was evident from this meeting that there are several factors not yet fully agreed and quick resolution is necessary as the time-scale for installation and commissioning of the mill is only four and a half months away.

The following points are intended to be a concise summary of the issues discussed and not a verbatim account of the meeting.

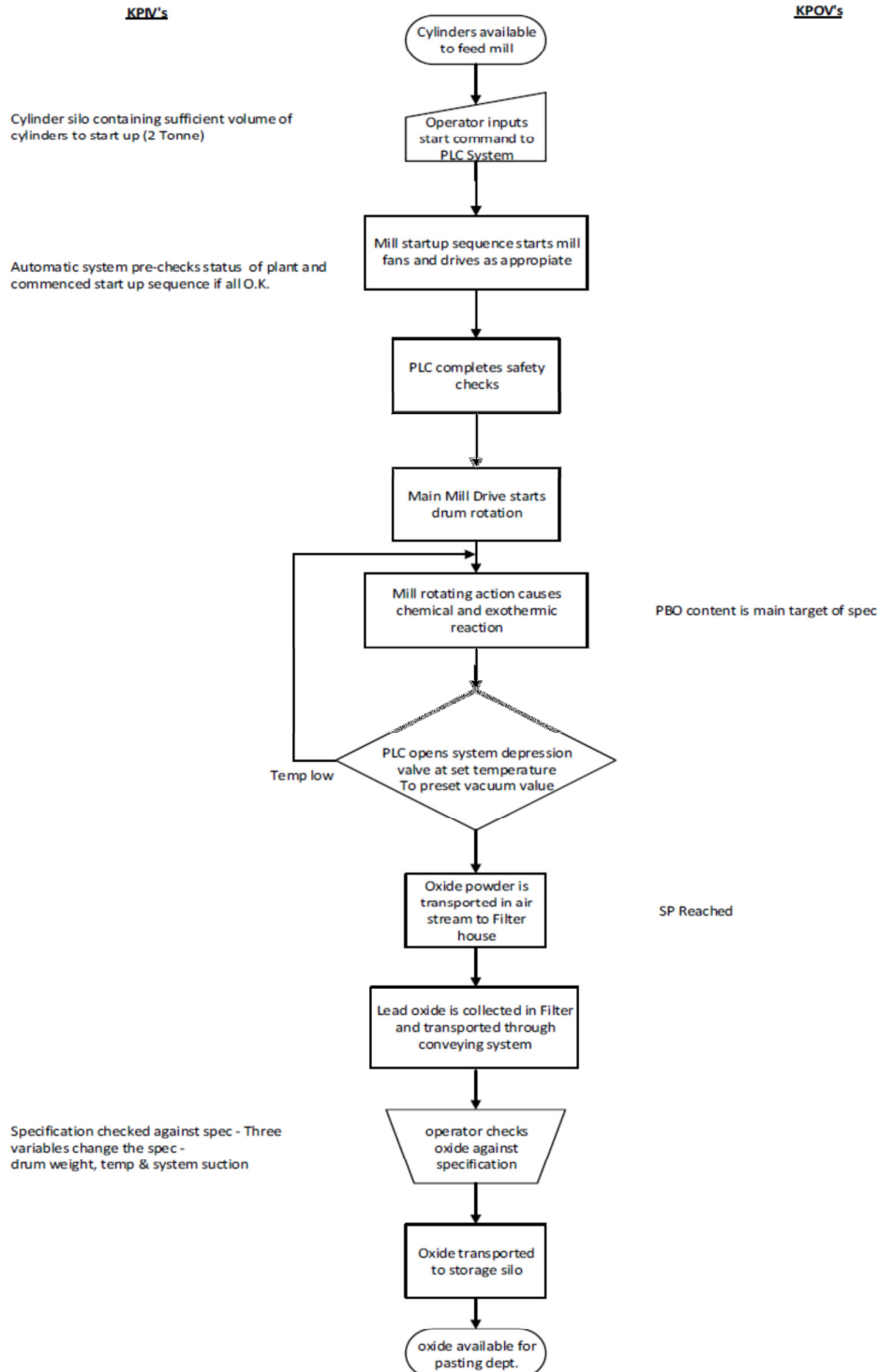
1. Mixing oxides - The specification of existing mills is similar to the new mill with regard to percentage free lead (60%). The issue of mixing the new and old mill oxides in the conveying systems gave little rise for concern for site personnel, Bill Lever and Don Mcdermot to verify this for next meeting.
There is an issue with the type of oxide used in BT and MOD batteries.
Action - Lee Wood to contact Bob Bullough with regard to this point in order to clarify the specification requirements for above products.
2. Control system - the new mill has a propriety control system which is viewed as suitable for stand-alone operation. There will be a need for simple interlocking with the existing mills controls and modifications for the new conveyors, these will be kept to the minimum required for successful operation of both systems.
3. New wall building fabric – Discussion as to the type required. The building size is not ideal for installation of the mill and any extension possible to the length of the room by building the wall as close to pasting as possible will assist the installation of the mill.
Action - Lee Wood to obtain options from civil contractor and report back.
4. Use of Red oxide – discussion as to the merit of Red oxide and the future percentage which may be used in products.
Action - Don Mcderomt and Bill Lever to discuss and report back.

Current use: 15% in Positive plates, possible future use 50% Positive plates.
5. Use of Bag import system for Tungstone powder – all agreed any work we could do to stop the need to use current bag system for bought-in powder would be beneficial. Bill Lever has been in discussion with Tungstone and Chemson re-supplying the site with powder in tankers and blowing into No.4 silo, which is suitable for this duty.
6. Existing silo's – discussion re-utilisation of the existing silo's and the need for extra capacity in future. Ged Phelan and Bill Lever to look at existing demand peaks and troughs to get a deeper understanding of how much feed we have ready to go forward to pasting at any one time.
7. New Silo's – discussion as to the need for one, possibly two new silo's, second silo may be necessary for the agreed requirement of exporting powder to other sites in the future.

Regards

Lee Wood Site Electrical Engineer

Oxide Mill Process Flow



Lee

I am happy to confirm that I supported your initial interest in Emotional Intelligence in the early 2000's and wish you good luck with your PhD.

Best wishes

Sid Forrest
VP Human Resources
EnerSys

+1-610-208-1694 (office)
+1-610-914-4100 (cell)

Sid.forrest@enersys.com

From: Lee Wood (DHL GB) [mailto:Lee.Wood@dhl.com]
Sent: Thursday, August 07, 2014 4:07 PM
To: Forrest, Sid
Subject: Emotional Intelligence Introduction

Hi Sid,

I was hoping that you could confirm by reply that you supported my initial interest in Emotional Intelligence back in the early 2000's. I have evidenced your input to my exposure to EI within my PhD and the following extract is from my draft work. I have copied it in below to give a flavour of how I approached the subject. My recollection was that it was initially around 2001/2 when we were transitioning from Invensys to EnerSys with further communications thereafter. That would fit with the time-line I have for other EI work I subsequently completed.

...At this stage I had not formally read about self-reflection; however I had been fortunate to spend time with a work colleague in a senior HR role (Sid Forrest, VP HR Invensys / EnerSys) who conveyed the value of Emotional Intelligence (EI), citing Daniel Goleman as a recognised subject matter expert. He inferred the value it could bring to people managers who were tuned in to a level of self-awareness, with the ability to reflect on situations and team dynamics and I duly researched the literature that was readily available at the time...

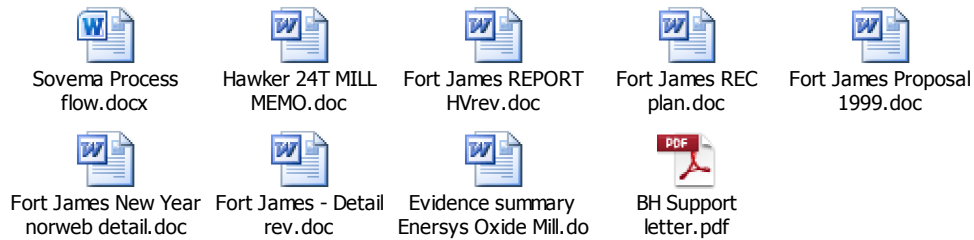
Thanks in anticipation of your response. Please contact me if need be for clarification or any other requirement.

Kind regards

Lee Wood MSc CEng MIET
Senior Engineering and
Continuous Improvement Manager



DHL Supply Chain
Sainsbury's Distribution Centre
Stoke-on-Trent



I confirm that the attached documents are genuine and support the work done by Lee Wood.

I also attach a letter written and signed by me which details Lee's working relationship with myself over the years, and some of the projects he has been responsible for.

I wish Lee every success in his future career.

Regards

Bob Hudson
Manufacturing Engineering Director, NiZn
Mobile (+49) 172 4302835
bob.hudson@uk.enersys.com

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"Please consider the environment before printing this e-mail"

8 August 2014

To whom it may concern,

Lee Wood worked with me from 1996 until 2000 in the paper industry at Fort James, a world-wide paper and board manufacturer, in a senior engineering role. In 1999 he identified the need to complete a significant project to take the electrical infrastructure of the site from a position of having many years outstanding maintenance and repair with potential to fail in service to one affording confidence that it would support the site's manufacturing requirements for the foreseeable future. This work was completed over the millennium period successfully and was such that Lee was awarded a formal commendation from the Mill Manager and I, for the manner in which he conducted himself throughout management and delivery of the project.

From 2000 until 2007 Lee and I worked together again in the industrial battery division of EnerSys, a world leader in Standby Power Systems. His career developed from a senior engineering role to operational roles at Operations Manager / Manufacturing Manager level responsible for day to day running of large-scale manufacturing plants.

In 2001 a strategic level project to install a new oxide mill was agreed and plans put in place to complete the project. Following concerns regarding the projects ability to be delivered on time to budget I requested Lee take over the project management role from the previous incumbent and manage the project to successful completion. Lee took this task on and made significant changes to the project plan, including the need to work directly with the Italian OEM of the new oxide mill in Verona, Italy to resolve outstanding system issues. The project was completed successfully and Lee completed a Greenbelt award in Lean Enterprise as part of the project management requirement.

Lee has always believed in continuing professional development and in 2004 whilst at EnerSys I supported his application for completion of an MSc in Engineering Management which he completed successfully in 2006. He has since been successful in an application to take him from Incorporated Engineer (IEng) to a Chartered Engineer (CEng) of the Institute of Engineering and Technology (IET) where he continues to volunteer his services to support other engineering colleagues through their career development.



8/8/2014

R Hudson

Manufacturing Engineering Director

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BLZ: 870 400 00
Konto: 255 199 200
HypoVereinsbank Zwickau
HYVEDEMM441
DE92870200880604908728
870 200 88
604 908 728

Geschäftsführer:
Klaus Vogel
Amtsgericht Chemnitz
HRB 6920
USt-IdNr. DE 151853270
St.-Nr. 227 109 018 92

Appendix 5 – Reflective Practice #3

Summary: This appendix provides supporting documents relating to reflective practice #3: CI Implementation at DP DHL.

Supporting documents include:

- Email evidence in support of PhD sponsor.
- Email communications relating to CI culture
- Email evidence in support Day in the Life of (DILO).
- Copy of the DILO document
- Email evidence in support EMEA CI Culture
- Copy of the DRAFT EMEA Quality Guidelines for Continuous Improvement.

From: Terry Cunningham (DHL UK)
Sent: 11 September 2012 14:28
To: Lee Wood (DHL GB)
Subject: Re: Potential PH.D

Hi Lee,
Still happy to be internal sponsor but may expand it a bit to include someone from perf mgt team, probably glen sutton.
Not sure on the reference to different regions in the main title as this will introduce complications.
I think it may be better to focus on CI and lean in a logistics environment, and have things like type of site, customer, contract, geography as important variables.
Might be best to have call on it.
Could do call on friday, say 12noon?
Terry

From: Lee Wood (DHL GB)
Sent: Tuesday, September 11, 2012 03:25 PM
To: Terry Cunningham (DHL UK)
Subject: Potential PH.D

Hi Terry,
I have been doing work in the background re PH.D potential and have made some progress.
When we spoke that you were prepared to be an internal "Sponsor" for me to take this on and I wanted to make sure you were still OK for this to happen.

The terms of reference for the PH.D would be along the lines of;

Looking at how to ensure CI / Lean methodologies can be successfully integrated in to different regions of the world, researching the impact differing cultures/values have on how successful this process is and how to fully engage / sustain the buy-in to CI / Lean mode of operating at all levels within a world-wide multi-cultural business.

Please let me know your thoughts and whether or not my draft on the PH.D title is close to where you think it needs to be. I am open to changing it to be a better fit with desired outcomes we discussed recently.

Kind regards

Lee Wood
Senior Engineer and
Continuous Improvement Manager

DHL Supply Chain
Sainsbury's Distribution Centre
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Sideway
Stoke-on-Trent
Staffordshire
ST4 4EX

Tel: 01782 574784
Mob: 07590 863433
Email: lee.wood@dhl.com
EngMgr.STOKDepot@sainsburys.co.uk

Dear all,

Many thanks for your time today, your level of input and contribution was much appreciated and will definitely help how we shape this important area. In particular I thought that the session provided many practical and pragmatic views and suggestions on how we, as an organisation, should start to apply ourselves to developing a continuous improvement culture at sites. Attached is a summary of all the key points we discussed. Also attached are slides used today and some of the feedback from other sessions for your consideration. Please come back to me if you want to make any further contribution of ideas on this topic

As mentioned there are no definite planned next steps in the short term on CI, until we agree clarity on how WMM and FC Way is to be developed. However the likely progress we discussed was for the new 2013 PtQ questions to focus more on CI, and this will probably encourage sites to use the ishare one-stop shop platform for CI tools and info, to give them a "hook" as you suggested. Meanwhile your output will be compiled with feedback from other stakeholders and will definitely be of great value.

CI will either be progressed in its own right to build on what we already do or will be used as part of the further development of the WMM. Either way I will keep you informed of progress on this important area

Once again thanks for your contributions today



regards,
Terry

Terry Cunningham
VP, Quality, EMEA.

DHL Supply Chain
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251 Midsummer Boulevard,
Milton Keynes, MK9 1EQ.

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Tel: 0044 (0) 1908 244063

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Hi lee,

Really like the DILO, have added a few notes in that we can discuss, just other things to include and then probably get someone to independently wordcraft. I will sound out someone on it also.

regards,
Terry

Terry Cunningham
VP, Quality, EMEA.

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From: Lee Wood (DHL GB)
Sent: 21 January 2013 15:07
To: Terry Cunningham (DHL UK)
Subject: First pass Presentation

Hi Terry,

Please see attached, please critique as per DILO and let us know any thoughts. James and I will be struggling to do any more on this until Wednesday due to other commitments, but if you came back with some thoughts I might get chance Wednesday night. Comments in blue or red are just to flag up that we want to discuss them on Friday.

Kind regards

Lee Wood MSc CEng MIET
Senior Engineer and
Continuous Improvement Manager

DHL Supply Chain
Sainsbury's Distribution Centre
Radial Park
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Stoke-on-Trent
Staffordshire
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Email: lee.wood@dhl.com
EngMgr.STOKDepot@sainsburys.co.uk

Continuous Improvement: A Day in The Life Of...

Oliver is the logistics director of a highly successful retail chain. His new cutting edge national distribution centre is currently being completed and the 3PL contract to run the DC is currently out for tender. Competition for the contract is fierce and Oliver has been invited to visit several flagship depots belonging to the various 3PL businesses keen to win the contract.

It's Friday and Oliver has visited three other distribution centres this week run by different businesses. So far nothing has stood out during these visits that have made the decision on awarding the contract any easier and he doesn't expect anything particularly different from his visit to a DHL depot today. That said Oliver has been pleasantly surprised with the pre-visit material he received via email. It included a detailed map and set of directions to arrive at the depot, including a set of links to the websites of local hotels that some visitors might find useful.



Oliver has no problem finding the visitor car park thanks to the clear road signs and the branded DHL signage on the approach to the depot. This was unlike the last depot he visited where he got lost and ended up at the goods-in entrance at the gatehouse. Upon arrival at the car park his first impressions are positive. The car park is well organised and well maintained, clear DHL branded signage directs him to the visitors' entrance and welcomes him to the site. On pressing the visitor buzzer on the turn style, Oliver is greeted by a helpful and polite receptionist that is expecting him and he is not kept waiting to enter the site. As he approaches reception he sees relevant, prominently displayed information for visitors; including health and safety information informing him of everything he needs to know to keep him safe as a visitor.

The reception he arrives at is well appointed, well organised and welcoming. After booking in with the receptionist Oliver waits for his site host to show him around. He notes that the reception area has a documented 5's Standard detailing how it should be organised and to what standard of housekeeping it should be maintained. Elsewhere Oliver sees current information displayed relating to DHL and their customer on the site. The information not only informs visitors about the site and its operations but also celebrates the site (DHL) and customer successes, including operational and local community via CSR activity. Oliver doesn't have time to read though all the information as the site host arrives promptly, welcomes him to the site and then conducts a brief visitor induction. The site host understands the reasons behind Oliver's visit and what he would like to see on the tour; clean PPE is ready for Oliver to use during his time on site and is appropriate for the areas he intends to visit.



Upon being led into the warehouse by the site host Oliver is taken aback by how clean the working environment is compared to other depots he has visited. Housekeeping is to a very high standard and the shop floor well organised. 5's standardisation runs throughout with visual guides supporting these standards are displayed prominently. Other visual management tools display operational status, customer KPI's and shift priorities clearly and concisely. Closer inspection shows that the visual management tools not only measure KPI's but also record issues within the operation including corrective and preventative actions taken to deal with issues.

Oliver gets the impression that the teams working within the warehouse are proactive and engaged with achieving the overall operational goals. Passing the MHE parking area and battery room, Oliver sees a well laid out and organised area. The MHE is clean and undamaged. The parking area is clearly defined and no MHE is parked outside of the designated parking bays. The battery area is clean and tidy with visual management tools indicating which batteries are on charge and which ones fully charged and ready to use. Pedestrian areas/walkways are clearly indicated and MHE and colleagues are kept separate wherever possible to ensure risk of accidental collision is minimized.

As Oliver is taken further into the warehouse he sees the level of housekeeping and organisation is maintained. Picked pallets and cages are kept in clearly designated zones. Empty pallets and cages are stored in an organised manner and do not overflow into non-storage areas. On closer examination it is clear that 5's standardisation and visual management

are extended to these areas with a process in place to deal with excessive numbers of pallets or cages ensuring that the storage area does not creep into non designated areas causing congestion or hazards.

Oliver arrives at the Outbound department briefing area and examines the various noticeboards on display. One of them catches his eye; one headed with the phrase “Corrective and Preventative Action”. The board details an issue encountered within the Outbound department the previous week that was costing DHL and the customer a significant amount of money. The noticeboard goes on to detail the process of root cause analysis/problem solving that was used to establish the cause of the issue, and the actions taken to resolve.

As Oliver finishes reading the CAPA noticeboard, a group of colleagues arrive and gather for their pre-shift briefing. Oliver stops to watch the brief be conducted by the manager of the department. The department manager briefs the colleagues on the current operational situation and highlights the priorities for today’s shift as Oliver might expect. However, this briefing is more of a two way dialogue between colleague and manager on the department’s performance. The team discusses the previous day’s performance, any issues that might have affected it and lessons learned. A lot of the discussion is around a team board in the briefing area which records shift performance, trends and issues encountered. The department colleagues seem to be making a real contribution to how the department is managed to achieve customer KPI’s. In



addition the manager informs the colleagues of an improvement initiative that is to be conducted in the area on a particular issue, inviting colleagues to put themselves forward for involvement as “subject matter experts”. Oliver notes that the colleagues seem engaged and enthusiastic about their roles. As the briefing ends the colleagues move off to their duties with a surprisingly high number making eye contact and acknowledging Oliver’s presence. Some stop to say “hello”, which Oliver has never really experienced before as a visitor to a depot.

Oliver examines another notice board in the briefing area which details the improvements made in the department, past, current and planned for the future. The impression given is that the site has a proactive approach to improvement of everything they do and that over time these small incremental improvements add up to provide a positive outcome for the business. The board includes photos of the improvement team which is made up of a combination of managers and colleagues. The improvements reference several terms that Oliver is not familiar such as the “DMAIC cycle”. When Oliver asks the site host about these terms, the site host explains that they are Continuous Improvement methodologies (tools), and gives a broad overview of what they mean and are used for in practice. The host can also explain where the concept of CI sits within the DHL global strategy of “First Choice” and what benefits it provides to DHL and the customer.

Oliver then travels across to the other side of the warehouse to the Goods In department. The unloading bays are just as well organised as the other areas of the depot he has been shown so far. Near one of the bays stand half a dozen managers. The site host explains that this is one of the sites regular Gemba walks. When he queries what a Gemba walk is, the site host explains that each department conducts a formal audit by walking an area led by that department’s process owner every month to identify potential improvements for that area. These walks are themed, so one might focus on workplace organisation and the next might focus on reduction of waste in a process flow. The outputs from these Gemba walks may then feed into other activities such as CAPA’s or other Process Improvement Initiatives.



As Oliver is taken back to reception, he sees another notice board with the header of “Ideas Management”. Taking a closer look he sees that the site has a structured suggestion scheme that welcomes ideas put forward by colleagues at all levels and where appropriate develops them into improvement opportunities within the operation. Several improvements are detailed and the people that came up with the ideas are highlighted and successes celebrated.

As Oliver leaves the depot, he has a lot to consider. The site he has just visited has shown itself to be cutting edge, not only because of its technology or equipment, but by the way it looks to the future and strives to constantly improve. This is not done solely by managers, but by fully engaged and inclusive site teams that understand the benefits to their business and that of the customer. As Oliver leaves the car park he calls his CEO and in an upbeat manner comments “DHL are to be our provider”. Confidence in them achieving his operational goals is evident and the contract is formally awarded to DHL 3 weeks later.

Lee,

Please provide feedback on this one pager for CI guidelines for PtQ, which is a mix of what you did, and myself and what we had from outputs plus PtQ questions.

regards,
Terry

Terry Cunningham
VP, Quality, EMEA.

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DRAFT EMEA Quality Guidelines for Continuous Improvement.

STATEMENT OF INTENT:

Continuous Improvement (CI) is intended to be a "business as usual" activity for all employees across all functions.

WHAT is Continuous Improvement?

It is a proactive approach to working smarter, exceeding customer expectation whilst supporting innovation in all of our operations, including those of our customers. It is the process of improving on everything we do, using any methods and methodologies, but doing this all the time. It encompasses all activities on any DHL operation/function, it involves all persons working for DHL and requires that they are always seeking to improve and do better on whatever job or task they are employed.

WHY is it so important to DHL and How can we do to advance it?

To deliver outstanding improvements for our customers, employees and colleagues. Our customers expect it, and this was one of the lowest scoring modules in the Customer Survey 2012. To deliver it everyone needs to show commitment and a positive attitude to proactively challenge the status quo and do everything we undertake better than yesterday. As an organisation we will deliver this by living our corporate approach to Continuous Improvement.

WHAT is it not?

It is not simply a mechanistic process whereby some expert facilitates or actions an improvement on a single or discrete range of activities on an occasional basis. It is not something owned by BPO or Perf Mgt or PI etc. but these all count as sources of C.I. It is not a just a few improvements over the year, conducted by a management team, in response to issues or requests, with limited employee input, although again this is another source of CI.

WHAT does CI look like in a workplace?

CI activities are actioned by any personnel, not just managers. Ideas, on issues and solutions, arise also from front line staff, people doing the job. Engagement and participation are key features, high levels of idea generation, practical solutions which actually get applied, and demonstrated positive trends against metrics are all central elements of a CI culture.

In particular the site has closely adopted 5S, and not only looks good and operates efficiently, but has successfully transitioned workplace ownership to those who work in each area; this process acting as the cornerstone of the site's CI culture.

Much of the site's CI is achieved via basic performance dialogues, i.e. the process of focusing on metrics, understanding and discussing the influences and determinants, and exploring solutions and causes. A workplace using CI would have visual materials on display, especially metrics (not just A4 sheets of KPIs), feedback boards, especially showing successfully actioned CI activities, evidence of focus groups or quality circles, employee led initiatives, list of ideas being considered for future action, a wide range of areas under consideration.

A variety of FC Way tools are in use, together with trend reports showing improvements in KPIs.

What are the various sources/methods of CI?

Perf dialogues, idea mgt, DMAIC & other workshops, lean tools, benchmark comparisons and best practices to stimulate progressive thinking, issue resolution & CAPA, Ideas Management, innovation, standardised process(e.g. SWOP), PI Initiatives, CI iShare/COIN, OUR PEOPLE.

What are the key outcomes/deliverables to assess site's effectiveness on this element?

Sites should have a clearly outlined process, ideally their SOP, and be able to demonstrate the value delivered via a CI log, or reference to other logs, and have an active champion to promote CI on site.

There should be many examples of various tools being used, methodologies in place, visual materials on show, specific initiatives applied. The concept of waste should be widely understood and gemba walks in place, with a strong level of visual control to aid understanding and appreciation of impacts on performance. 5S

Performance dialogues should be a key feature of site management methodology, with clear evidence in place, such as visual metrics and use of participative methods such as quality circles, focus groups or Kaizen teams.

Clearly number of improvements made, ideas generated, positive KPI trends, increased productivity, better service and lower costs can all be used to demonstrate how effective the CI culture is on site.

What would not be sufficient evidence is mention of a few isolated management led initiatives arising from issues, PI or customer workshops, or simple reference to some improved trends without evidencing the committed participative process which led to them.

This element is assessed monthly so expectation is that these things are evidenced every month.

Reference materials: SOP; CI iShare Links; COIN/PI,

Appendix 6 – McKibbin Research Award

Summary: This appendix provides supporting documents relating to reflective practice #3: CI Implementation at DP DHL.

Supporting documents include:

- McKibbin Research Foundation Award 2014 Certification
- McKibbin Research Foundation Award Extract from CILT
- McKibbin Research Foundation Award – Copy of Thesis



The Chartered
Institute of Logistics
and Transport

Patron: HRH The Princess Royal



Lee Wood

has been awarded the

McKibbin Research Foundation Award 2014


Chief Executive



Welcome to the Annual Awards for Excellence Dinner 2014

As President of CLILT(UK), it is my honour and privilege to welcome our finalists, sponsors and guests to the 15th year of Annual Awards for Excellence Dinner, which to my mind is a much awaited event in every member's calendar. It gives members and guests the opportunity to enjoy a great evening, to network with friends and colleagues and to give recognition to the efforts put in by the finalists and winners of tonight's awards for their endeavours.

As ever, the objectives of the Annual Awards are to honour professional achievement; to enhance the reputation of the sectors we serve, to encourage best practice and the highest standard of excellence in logistics and transport. The number of entrants and standard of entry to the awards committee this year has been exceptionally high, which has significantly challenged our judging panel. Again this year we have some innovative and practical solutions which will advance and benefit customer service, partnership alignment and at the same time significantly improve efficiency, reduce cost, and help minimise the impact we have on our environment. Last year, our immediate past President, Jim Steer, referred to our slow but positive recovery from the recession and to the part our industry played in that recovery. Our future challenge is to ensure we do not return to such a challenging and disruptive position and to constantly look for innovative ways to drive value. I believe our excellence awards programme is a platform to help us do this.

It would be remiss of me not to remind you about the themes I am championing in my year as President, which are: increasing and retaining membership; continuing professional development (CPD) and mentoring. All of which are at the core of CLILT's Vision, Values and Goals: *to be the leading global membership organisation providing education and development for both individuals and corporations within our range of professions. I would very much welcome your support in achieving this challenge.*

On behalf of the Board and members of CLILT(UK), I would like to thank the judges of the awards who worked extremely hard to shortlist and select the winners of the award categories, not an easy task. Also a big thank you to the team which made this evening's event possible and to our sponsors without who's support the event would not be possible. Finally, congratulations and thank you for all submissions, the finalists and winners of this evening's awards.

"Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishment toward organisational objectives. It is the fuel that allows common people to attain uncommon results." *Andrew Carnegie*

I wish you all a very successful and enjoyable evening.

Jim Spittle FCILT
President, CLILT(UK) & Chairman, GSI UK Limited

McKibbin Research Foundation Award Sponsored by Bisham Consulting

The winner this year is the DHL's Senior Engineering and Continuous Improvement Manager, Lee Wood.

The McKibbin Foundation objective is to encourage members of CLILT to complete a piece of in-depth research within their organisation on a transport, supply chain or logistics issue. It is hoped the research will take them out of their comfort zone and stretch their understanding.

Lee studied, 'What is continuous improvement?' and 'What is current best practice' in the context of a logistics organisation. He also looked at the environment necessary to maximise continuous improvement.

His objectives were well thought through and defined a sensible area for exploration. Lee studied whether organisational learning could provide an environment to support and make continuous improvement sustainable; he discussed a competencies framework for continuous improvement for implementation managers. His research references were broad but focused and his analysis was clear, concise and easy to read. The paper provided evidence that research in this area could provide insights and direction for our industry.

**A STUDY EXPLORING THE POTENTIAL TO IMPROVE
CONTINUOUS IMPROVEMENT IMPLEMENTATION
PROCESSES IN LOGISTICS**

By

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**A research paper submitted for the CILT
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1.0 INTRODUCTION

The inspiration for this study was motivated by the author's professional interest in Continuous Improvement (CI) driven by a change in career path which has taken me from highly complex manufacturing environments into the third-party logistics (3PL) automated business of DP DHL. I have direct managerial responsibility for CI in a large-scale Distribution Centre of the well-known supermarket chain.

Coyle, Bardi, and Langley (1996) comment that 3PL involves an external organisation that performs all or part of a company's logistics functions. In relation to DP DHL their business portfolio covers all logistics areas however this varies from contract to contract and by business division dependent on the specific customer's requirements. Lummus and Vokura (1999) discuss the definition of Supply Chain Management and offer the following summary. *"All the activities involved in delivering a product from raw material through to the customer including sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, delivery to the customer, and the information systems necessary to monitor all of these activities"* (Lummus and Vokura, 1999, p.11).

Historically the areas noted by Lummus and Vokura have been viewed as passive elements under tight management control rather than areas to be looked at from a CI perspective to drive innovation and competitive advantage (Hyland et al., 2003). Delighting customers had previously been viewed as cost minimization first, all other criteria second, leading to pro-active and innovative areas such as the use of inventory information and packaging reductions programs to drive purchasing and pricing strategies potentially being missed by suppliers and customer alike.

Objectives such as providing excellent customer service and quality are classed as standard expectations from customers, as is a cost effective solution, with a cost neutral / reduction year on year being the on-going outlook for the majority of world markets. This begs the question of what will deliver the next significant step change in the performance of logistics organisations. To compete in this cut-throat, aggressively competitive environment organisations need to adopt strategies in their operations and logistics environments that will keep them at the forefront of their respective business offerings (Black, 1991).

With the above in mind the following aims and objectives were developed for the study;

The aims of the study are to;

- Understand what is presently considered as Best Practice for CI Implementation.
- Identify how to successfully implement CI programs across multiple sites of a logistics provider in a consistent manner across cultural and ethnicity differences.
- Determine the potential for a symbiotic relationship existing between Organisational Learning (OL) and CI. If proven investigate how this can provide mutual benefit through implementation programmes
- Evaluate and propose a competency framework for CI implementation managers.

The objectives of the study are to;

- Expand the present understanding of what constitutes a successful CI implementation program and use this information to offer improvements to the process in a logistics environment.
- Design a formal process to support implementation of CI that can be adapted to suit localised differences in culture and ethnicity.
- Interrogate the depth of the proposed symbiotic relationship between OL and CI, and apply the outcome of this to support improvements of implementation practices.
- Develop a competency framework for CI implementation managers as a precursor to involvement in CI implementation programs.

The challenge through this paper will be to find a way for site managerial teams to reflect on the positive value of CI implementation and the advantages it will bring to them in their respective businesses. This will only be possible by making the implementation process as user friendly, inclusive, effective and sustainable as possible without the need for high levels of on-going resource, a commodity not readily available.

Primary research data for the study were derived from the author's career (twenty plus years) working with CI projects supported by semi-structured interviews of CI

practitioners and colleagues. Secondary data, including private sector publications, government reports and professional journals were researched; with specific documentation on the DP DHL iShare and corporate intranet (COIN) portals forming an integral part of the understanding relating to CI programmes and their implementation within DP DHL as a reference point. When the author visited numerous sites internal and external to the business to review CI it was evident that implementation programs were not consistent, although some similarities were evident. The programs were frequently driven by local, unstructured approaches, although corporate programs were in place. Some sites had an identified CI or Process Improvement (PI) champion position and in others it was a “bolted on” expectation to a colleague or managers day job.

2.0 BACKGROUND

The author’s employer, DP DHL is driven by three specific core values under the banner of First Choice Way™ namely to be; Employer of Choice, Provider of Choice and Investor of Choice and CI sits as one of the key business strategies recognised as supporting these goals. This is part of the DP DHL 2015 strategy that has been running over recent years. In April 2014 the organisation’s evolution has led to formation of a 2020 strategy that will lead on from the 2015 strategy with a focus on core business competencies, working together and developing business opportunities in emerging markets, known as “Focus, Connect and Grow.” It is envisaged the outcomes from this study may support improvements to the DP DHL CI environment with the potential to share with other external partners as deemed appropriate.

Through initial research the author identified that organisational learning (OL) is a key element in the success of project implementation and development of employees to unlock their next level of potential to support future success. There has been an acceptance, in international best practice organisations, of an OL approach to CI both in products and in key processes (Boer et al., 2000). To maintain a sustainable competitive advantage in logistics functions, such as distribution centres the management teams of these operations can benefit from implementing CI whilst ensuring that their organisations have the necessary means to support organisational learning concurrently. Hult et al. (2003) comment that OL is identified as an important parameter in the accomplishment of logistics and supply chain goals (Flint et al., 2005) identifying OL as a contributor to logistics innovation.

To meet the challenges posed by the competitive environment, organisations must infuse quality and performance improvement initiatives in all aspects of their operations to improve their competitiveness (Pintelon and Gelders, 1992). Reid (2006) comments that competition and continuously increasing expectations of customer satisfaction have proven to be endless drivers of organisational performance improvements. The CI strategist constantly seeks to identify and implement on-going enhancements in an organisations products, services and processes as a means of delighting the customer. The need for constant development of an organisations competitiveness and flexibility to meet customer demands supports the need for new methods to be introduced continually (Black, 1991).

3.0 CONTINUOUS IMPROVEMENT DEFINITION AND DEVELOPMENT

One of many definitions of Continuous Improvement is that; *"It is defined as an on-going effort to improve products, services, or processes. These efforts can seek "incremental" improvement over time or "breakthrough" improvement all at once. Delivery (customer valued) processes are constantly evaluated and improved in the light of their efficiency, effectiveness and flexibility"* (Wikipedia, 2014).

CI methodologies can, when successfully implemented, drive the culture of processes becoming leaner, eliminating waste and delivering higher value. This drives a basic business requirement that can easily be missed; customers pay for value, they don't pay for inefficiencies inherent in their suppliers or supply chain.

McAdam et al, (2000) argue that development of a CI culture by companies is strongly associated with the development of an innovative culture. The proposition that a CI culture gives rise to an innovation driven culture is of particular significance; the development of an innovative culture is crucial to the prospects of an organisations ability to continually develop new customer offerings and future strategic direction (Singh and Singh, 2013).

Lanciotti (1999) points out that many organisations do not share market information with their suppliers, as mutual trust is lacking. The sharing of strategic information is critical to organisations that are attempting to learn from one another to improve supply chain performance as the opportunity to learn from customers and suppliers would provide managers with the information required to implement CI more proficiently.

The need for sustained innovation, identified as an output from CI programs, in order to ensure business survival has been well documented (Hamel, 2000). Unless organisations improve what they present to their customer; be that product offering, service level or innovation, there is a high risk of failure. Considerable attention has been focused on ways in which organisations manage the process of innovation. An important aspect of this concerns the question of extending involvement in innovative activities to all levels of an organisations workforce (Nelson and Winter, 1982; Pavitt, 2002).

The underlying principle follows that many employees have a high capacity for finding and solving problems and seizing opportunities if they are given the chance. While some innovation activities require specialized knowledge which can be bought in if required; the majority of them can be addressed to acceptable standards, with a high level of workforce participation and engagement (Imai, 1997; Boer et al. 1999). The author recognises that implementing a CI program whilst deemed as an improvement by the change agents (implementers), it is a form of change for those expected to embrace it which is often reason enough to fight against it if transparent communications, trust and mutual benefits are not evident from the start.

It is apparent from the literature review that cultural changes and transformations are taking place world-wide. Following a study by Haire et al. (1966) researchers have continued to search for similarities in culture specific beliefs and values in various aspects of work-related attitudes and behaviours. Heuer et al. (1999) suggests that if cultures of the world are converging then related international business practices will become increasingly similar.

It is important to understand the issues surrounding cultural convergence and divergence, and the processes underlying cultural changes. The diversity of personnel; be that cultural or ethnicity across multi-national organisations may lead to the potential for conflict within them driven by inappropriate context of implementation plans, cultural ignorance and the loss of implied context and meaning through translation.

In *The Fifth Discipline*, Senge (2006) argues that experiential learning is the best way to develop, however most individual's never experience the outcome of their actions and do not therefore close the learning cycle and improve their respective professional capability. In the author's profession as a Chartered Engineering Manager the mixture of academic Underpinning Knowledge and Understanding (UK&U) coupled with

experiential learning to develop skills are viewed as two of the compulsory conditions for measuring competence and developing professional engineering standards leading to formal registration. Potential synergies with the requirement for the CI implementer skill-set will be examined.

4.0 ANALYSIS

Throughout the literature review a number of unanticipated qualitative components surfaced causing the author to explore them in more detail than originally planned. It became evident that implementation processes, in the case of this paper CI, are related to a high number of possible input variables affecting the outcome and many inter-connected elements are contributory. Salient points are summarised below to provide evidence in support of the recommendations and conclusions drawn.

4.1 Overview of CI Tools

Opportunities

- They are already widely used across Manufacturing and Logistics sectors.
- They can be taught in classroom sessions successfully dependant on academic ability of colleagues attending and level of training undertaken.
- Tangible benefits can be seen by all.
- Supports a better place to work ethos, supporting engagement.
- Do not require significant costs to implement; should be business as usual activity.

Above form the main expectation we have on majority of colleagues to be involved in DP DHL First Choice Way / CI activities.

Tools

- Kaizen events can be attended by all colleagues with guidance and support – no academic bias required as a precursor to involvement.
- 5's programs – Developed over extended period embracing all levels of colleagues.
- Widely used tools include - DMAIC, CAPA, PDCA, TQM, TPM, JIT, LSS, FMEA

Challenges

- Lean Six Sigma requires understanding of standard deviation, statistical analysis processes and mathematical competence to high level dependant on application.
- DMAIC requires minimum 5 day training event to develop first level (Bronze) competency internally recognised within DP DHL. A level of academic capability is a precursor to successful completion.
- Significant costs may be necessary to formally train colleagues to high competency levels required. CI projects require commitment and drive to see them through.
- Buy-in and on-going support from leadership is essential for positive outcomes.

4.2 Organisational Learning.

OL is a concept used to describe certain types of activity that take place in an organisation where the embedding of individual and group level learning form part of the organisational structure and processes.

- OL is based upon the transfer of knowledge and experiences from teams or individuals to the very core of an organisation.
- It involves the transfer of information from the familiar domain of individual learning known as the source domain, to the complex target domain the organisation.
- The diversity of ways that learning is conceptualised within learning literature supports the view that the many different processes can be used characterised into three distinctive types;
 - Learning through formal training,
 - Learning through the use of interventions in the workplace and
 - Learning that is embedded through exposure to day-to-day activities and individuals' reflections

4.3 Learning Organisation (LO)

LO refers to a particular type of organisation which supports the learning and expression of its workers through experimentation, managed risk taking and open discussion, delivering success to the organisation.

- A LO is typically one which is good at OL and its learning ethos is demonstrable.
- Many organisations emphasize the importance of teams, relationships, and networks as the basis for effective transfer of their knowledge.
- Some companies emphasize the importance of sharing knowledge between colleagues informally without capturing it in a "corporate memory" receptacle; however benchmarking partners also share knowledge through structured mechanisms and team approaches known as Knowledge Management (KM).
- An identified difficulty of achieving accurate learning is that organisations face an increasingly complex and fast changing environment. Identifying robust cause and effect relationships can be difficult.
- Learning can become institutionalised. This can be categorised as: organisation norms known as "*competency traps*" including processes that may have proven to be successful in past, however they are not formally questioned to ensure their validity or effectiveness for the present and future needs of the organisation.
- Leaders should be learners and coaches promoting the development of employees through mentoring. This contributes to leaders becoming sensitised to the opinions of colleagues supporting a responsive attitude to their ideas, improving engagement.

LO that develop their staff see the reciprocated benefit of their learning through contribution to the on-going sustainability and transformation of the organisational framework.

4.4 Organisational frames of reference (OFOR)

OFOR consist of cognitive elements and operators with reality tests that select, organise and validate information; they are further characterised by a domain of inquiry and manner of articulation and codification.

- The use of personal experiences in (some) organisations will be classed as a legitimate source of information; in these organisations qualitative data from personal sources are most commonly used for strategic decision making (Wildavsky, 1983).
- In contrast, other organisations use quantifiable, numerical, objective data generated through internal management information systems based on explicit knowledge.

- The inherent differentiations in organisations caused by industry sector, environment and technology create a natural diversity, however OFOR transform this generalised variance into uniqueness of an organisation.
- OFOR facilitate the development of distinctive cultures and identity for organisations and systems of control providing a stable framework through which members are able to interpret their own organisational world and support it.
- They set rules for developing behaviours and create a context in which decision making and action are possible.

In summary OFOR provide a means to explain and help define organisational boundaries and how they interact with their colleagues.

4.5 Use of Stories (analogies and real life situations)

Stories that dramatize or illustrate managerial systems, values, and norms are more likely to be believed and acted upon than mere statements of policies and norms. When leaders harness the transformational strength of language to motivate and inspire, they will likely conclude that organisational storytelling makes sense and continue to embrace its effectiveness (Swap et al., 2001).

- Stories represent and shape organisational culture and support resolution in ambiguity by providing meaning to all levels of colleagues in an organisation
- They work to change beliefs and behaviours through both cognitive and emotional processes.
- By exemplifying and dramatizing company values, systems, and norms, stories generate commitment.
- When leaders harness the transformational strength of language to motivate and inspire, they will likely conclude that organisational storytelling makes sense and continue to embrace its effectiveness.
- Stories about how an organisation handled a competitive threat, survived or prospered through a recession, advanced a new product or developed a valued employee help to reaffirm an organisation's picture of itself Schein (1985).

4.6 Knowledge Management.

The link between OL and KM provides a further area requiring probing to understand the potential shortcomings in KM practices and how this relates to the OL capability of an organisation and subsequent business performance (Bogner and Bansal, 2007).

- Organisations pursuing KM as a business strategy believe KM is central to their ability to grow and compete (O'Dell et al. 1999). Such organisations rarely need to make a business case for the concept and often have a formal "knowledge champion" in place.
- Significant resources are embedded in all areas of the business to ensure that knowledge is accessible to and through their people, processes, and products.
- In these organisations knowledge is viewed as a tangible product with the principle that it will have a significant impact on the profitability and viability of the enterprise.
- The KM strategy is pursued either by integrating it with the overall business strategy or by treating it of parallel importance with other strategies.
- Rather than to drive cost down KM supports a view of materially affecting an organisation's top-line revenue and earnings per share. Indicative of Appreciative Inquiry approach to management detailed later.
- Published literature suggest there is an increasing polarisation between highly skilled and highly paid (high KM content) to lower skilled and lower paid (low KM content) jobs.

4.7 Innovation

Innovation is defined as *"the deliberate modification, or transformation, by an organisation of its products/services, processes or structures"* (Hislop, 2009).

- In an increasing global economy, continuous improvement and innovation have become pre-requisites for staying competitive.
- With the additional complexity of sharing tacit, context specific knowledge the overall set of parameters for implementation of innovation become complex in nature and thus require the skill-set of the innovation leader to support these needs (Hislop, 2009).
- Considerable attention has been focused on ways in which organisations manage the process of innovation. An important aspect of this concerns the

question of extending involvement in innovative activities at all levels of an organisational workforce.

4.8 Innovation (trust & strength of relationship).

Trust is a necessary condition for cooperative behaviour between individuals, groups and organisations (Jones and George, 1998; Hansen, 2002).

- Leadership's role is to monitor and support innovations; this requires them to nurture and create events and processes to energize emergent and self-organizing change.
- Many organisations do not share market information with their suppliers, as mutual trust is lacking.
- Business performance measurement must be transparent and communicated at regular intervals to all levels of employees to support a culture of trust (Beer, 2003).
- Innovation can typically be interactive in nature requiring support between organisations, groups and individuals if it is to be successfully implemented.
- It is accepted within literature that strong relationships between partners in a supply chain lead to a number of beneficial operational outcomes including a reduction of inventory, transportation, ordering and warehousing / handling costs (Mentzer, 2001).

4.9 Culture

Culture is the collective programming of the mind which distinguishes the members of one group or category of people from another (Geert Hofstede, 1994)

- Culture drives the values and behaviours that contribute to the unique social and psychological environment of an organisation.
- Culture moulds an organisation's expectations, experiences, philosophy, and values that hold it together.
- It is based on shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid.
- Organisational culture is shown by the ways the organisation conducts its business, treats its employees, customers, and the wider community.

- Culture supports the extent to which freedom is allowed in decision making, developing new ideas, and personal expression, this includes how power and information flow through its hierarchical levels.
- Culture influences how committed employees are towards collective objectives.

Culture develops through social learning mechanisms whereby actions and behaviours associated with favourable outcomes tend to be repeated and developed, leading to the point where they become behavioural norms (Baron and Walters, 1994). Culture is a complex area to understand and requires detailed knowledge if the divergence it brings is to be used positively within an organisation. Figure 4.1 illustrates an overview of the complexities involved from the author's perspective and suggests that there are numerous issues that require consideration if culture is to be understood.

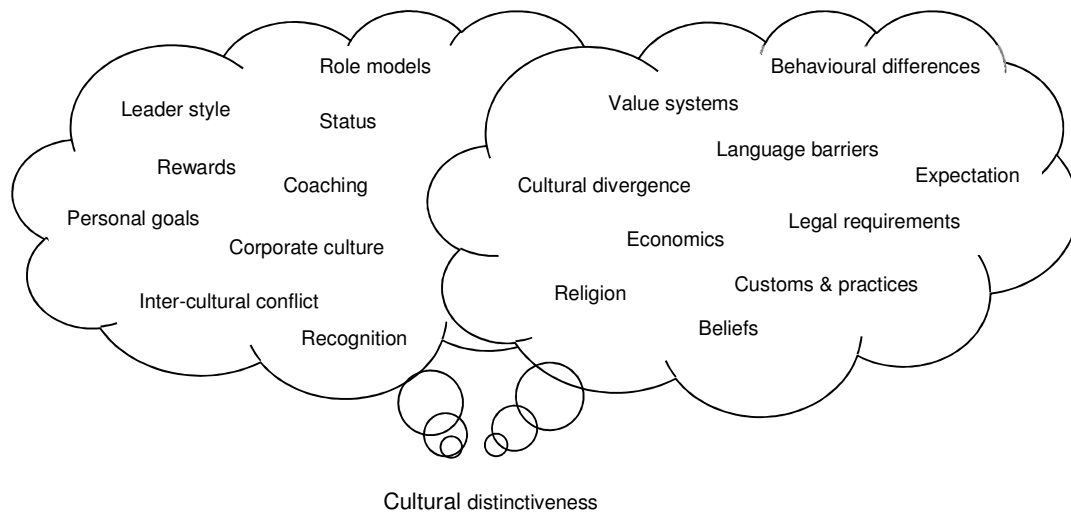


Figure 4.1 Complexities of Culture

4.10 Emotional Intelligence (EI) concerns the ability to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought (Mayer and Salovey, 1995).

- Literature supports EI as a key element on which human resource professionals and organisations must focus with research indicating a correlation between EI and general performance climates in the workplace (Morehouse, 2007).
- Emotion has increasingly been acknowledged as important in explaining variation in key cognitive and social processes, influencing how events are interpreted.

- EI is a critical factor in effective leadership playing a significant role in a manager's performance, especially where delegation of work and power are concerned.
- There is a high correlation between EI and inspirational motivation, indicating that understanding emotions is particularly important in leadership effectiveness.
- Transformational leaders bring about their goals by encouraging their followers with visionary goals. They challenge the status quo and are genuinely concerned with individual needs and the importance of giving feedback.

4.11 Appreciative Inquiry (AI). Cooperrider and Whitney (1999) define AI as *“the cooperative search for the best in people, their organisations, and the world around them. It involves systematic discovery of what gives a system ‘life’ when it is most effective and capable in economic, ecological, and human terms.”*

AI seeks to effect change / transformations by focusing on organisations members' positive experiences. AI is a form of action research designed to help organisations create new, generative images intended to transfer thinking to a more positive and generative consciousness in order to achieve transformational change (Marshak and Grant, 2008).

- It advocates collective inquiry into the best of what there is facilitating a drive to what could be followed by collective agreement of a future state that is positively compelling. This leads to a situation whereby the use of incentives, coercion or persuasion for planned change to occur are not required (Bushe, 2013).
- The intent of AI is to engage all stakeholder groups in inquiry into the positive potential for cultural and systemic change (Siegel, 2008).
- Engaging the right people, especially powerful sponsors, in identifying a focus that is of high interest to those leading the organisation and will be compelling to stakeholders is critical to overall success of AI programs.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The outcome of the above analyses and overview suggests that no single area of research provides the holy grail of how to implement CI programs effectively over a geographical region. It cannot be achieved by training and providing explicit

information alone. The specific areas researched above could all be expanded on significantly to interrogate further, however this would be outside the scope of the research. Interviews held with CI practitioners suggested an over-riding concern with how colleagues can become more engaged at sites thus supporting a positive implementation process. This requirement ties in with DP DHL strategy driven through First Choice Way™ expectations. The literature suggests that successful implementation programs do not fall into the “quick fix” category of opportunities supporting the view that implementation of CI in logistics is not where it needs to be.

At the onset of the research the author had an open mind as to how the use of some simple analytical CI tools and relevant colleague training may provide the necessary foundations to improve CI implementation programs in line with the desired outcomes of the paper. This was based on primary evidence at the author's site over a three-year period where noteworthy improvements to improving CI implementation programs have occurred. This was at its highest level when Kaizen events were completed with high colleague participation and commitment levels, successful outcomes and positive feedback. Trust developed at the onset of the programs between the manager (s) and the colleagues involved coupled with experiential learning gained through the projects were identified as enablers for the positivity seen. Colleagues who had previously had little opportunity to formally affect the business were placed in a position whereby their opinions and ideas were truly valued and acted upon with tangible evidence evident for all to see.

With regards to the aim of understanding best practise for CI implementation there is not a set of processes readily available that can be cut and pasted into a specific site or business documentation to ensure success. At no point did any published works provide a step by step approach to CI implementation apart from an overview of how to use CI tools. This would suggest the softer skills element of successful Implementation are lacking. On reviewing the DP DHL intranet there is positive evidence of bringing a consistent message on how to achieve CI goals, however this is in development stages of roll-out and it will take time to see if this process is successful in the future across the wider DP DHL.

Through published literature CI implementation is seen as eclectic in application supporting the need to accomplish objective two of the paper namely the design of a formal process to support implementation of CI that can be adapted to suit localised differences in culture and ethnicity. To effectively achieve this it became evident early

on in the research that further examination is required across a much wider scope of colleagues and organisational business sectors to look for behavioural trends, impact of cultural / ethnicity differences and acceptance of what is deemed as a best practice, consistent approach.

OL is repeatedly quoted within the literature as an enabler for driving employee engagement with their respective organisation and the CI agenda is closely tied to this in innovative organisations. OL is identified as an important parameter in the accomplishment of logistics and supply chain goals identified as a contributor to logistics innovation. The diversity of ways that learning is conceptualised within learning literature supports the view that learning takes place in three recognised ways; Learning through formal training, the use of interventions in the workplace and learning that is embedded through exposure to day to day activities and individuals' reflections on experiences. When the quality of learning is high the potential for the respondents to absorb, use and pass on the learning can lead to more positive outcomes than would have been possible without a symbiotic relationship being in place thus acknowledging the relationship between OL and CI.

Innovation and CI have an identified overlap in their respective support to on-going business success, with sustained innovation identified as an output from CI programs supporting business survival (Hamel, 2000). The literature suggests that strong relationships between partners in a supply chain lead to a number of beneficial operational outcomes (Mentzer, 2001) when trust is evident.

In order to implement CI programs across sites effectively the ability of the individual or team delivering CI programs is a key factor. The competency of CI implementation managers appears at first pass to be directly linked to their academic knowledge of CI tools. The literature review offered a contrast in position suggesting that many softer skills such as the use stories and analogies to get their point across in order to improve understanding, cultural awareness, professional integrity, competency and ability to gain the trust of their audience to drive engagement and motivation are fundamental elements coupled with a level of EI so as to understand the emotional state of the audience they are working with. These skills cannot be "trained" into managers / implementers over a short period of time and the expectation to be conversant across them all requires time and effort to develop.

None of the attributes identified above have a text book approach to how to guarantee success leading to the varied manner in which programs are implemented presently. Within the DP DHL organisation the author was able to ascertain that the competency of the CI trainer and/or manager is based on a (positive) career background that could be one of many disciplines including warehouse, financial, engineering or transport management. This spread of experience supports the diverse businesses we are in and is backed by a five day CI / PI training course working to an expectation of delivering projects using the DMAIC process. This is based on attendees using a suite of tools rather than understanding the soft skills capability of the training attendees.

The balance between academic learning and people / managerial skills is fundamental to support the manner in which knowledge is imparted to others for the mutual benefit of the individual's and the organisation alike and this requirement should not be underestimated. In professional engineering lacking in one attribute; be that academic, experience or people / management skills will likely negate the opportunity to progress to higher levels of professional engineering registration through formal accreditation processes. Furthermore the requirement for continuing professional development (CPD) is evident and auditable proof is required. It is the author's recommendation that CI Implementation Manager / trainer skill-sets should be formally reviewed and agreed to support the development of CI practitioners and implementers of the future to ensure the balance between agreed criteria are maintained and accredited on an on-going basis. This to include course content, on-going selection and support of those attending formal CI training programs; leading to successful implementation projects.

If all the necessary information is put in place and colleagues with an ability to deliver training effectively are chosen this will facilitate successful implementation programs. Within the literature review and CI practitioner feedback an identified area affecting implementation is the lack of required resource to manage CI effectively at site levels. If not resourced effectively CI implementation will fail in a consistent manner to other projects of an organisation. This would suggest a lack of OL approach to engagement by an organisation and low levels of consistency or sponsorship by either locally trained managers or leadership to drive expectations. A lack of understanding by not devolving the organisations expectations at the core levels of OL, LO, OFOR and cultural considerations to colleagues would be symptomatic of this.

The use of AI to support positivity in the manner in which an organisation implements opportunities or deals with issues has been a growing areas of interest within published

literature. It effects change focusing on positive experiences, suggesting new ways to approach issues rather than revisiting and refining existing methods. Through an OL approach the use of AI requires further research to fully understand the impact it can have in the logistics environment, however the positive attributes reviewed suggest that if appropriately used it will support positive outcomes to organisational change.

In summary, being able to present a one fits all solution to successfully implement CI programs is not possible within the scope of the work. The central outcome identified is that the ability to improve the implementation of CI programs through developing a competency framework for CI implementation managers is possible. The scope requires further research to identify the most effective way to bring this framework together.

6.0 GLOSSARY

CAPA – Corrective and Preventative Action. A process using root cause analysis tools and the 8D methodology to identify the true root cause of an issue and put in measures to remove or minimise that root cause.

DMAIC – Define, Measure, Analyse, Improve and Control. A cycle of activity that promotes a data driven approach to improving processes. This method is used as a framework for both Six Sigma and Lean Six Sigma.

FMEA – Failure Mode Effect Analysis. A system that allows the analysis of the potential failure scenarios of each element in a given process. This allows the root causes of potential failures to be mitigated / eliminated and therefore reduce overall risk.

JIT – Just in Time. A method of production/manufacturing which seeks to minimise in-progress inventory by aligning production against demand.

Lean Manufacturing – An outgrowth of the Toyota Manufacturing System that aims to reduce waste within a process. This is done by eliminating pure waste activity, minimising value enabling activity and maximising value adding activity.

LSS - Lean Six Sigma. A hybrid set of tools and processes used in process improvement that combines elements of Six Sigma with Lean Manufacturing to reduce waste and variation within a process.

PDCA – Plan Do Check Act. Also known as the Deming Cycle. A 4-step process used within business in continuous improvement and quality management.

Six Sigma – A process improvement methodology that aims to reduce defects and variability within a process.

TPM – Total Productive Maintenance. A system by which maintenance of plant and machinery is managed to maximise “up” time and productivity.

TQM – Total Quality Management. An approach to quality management and the continuous improvement of products and services to customers.

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Appendix 7 – CI Presentation

Summary: This appendix provides supporting documents relating to reflective practice #3: CI Implementation at DP DHL.

Supporting documents include:

- Email evidence in support of CI Presentation.
- Copy of CI Presentation

Ladies, I have asked Lee Wood to support our Continuous Improvement Strategy Development. He is currently working on his PhD which circles around the context of CI.

I asked him to summarize his research on CI from a academia literature perspective. Please find result attached. Very helpful to broaden our thinking.

Please have a closer look and let's discuss this week.

Thank, Lee!

Best,
Ben.

From: Lee Wood (DHL GB)
Sent: Sonntag, 27. April 2014 16:48
To: Ben Lechner (DHL Supply Chain)
Subject: RE: Detailed Overview of CI Research

Ben,
Please see draft document for review. I have offered some thoughts at the end of the presentation as to what / where we should perhaps focus our resources and efforts. Maybe one or two are a little contentious and might not be suitable for all audiences. I thought it better to share them with you at this stage and remove if necessary.

It is longer than originally envisaged and I can summarise further if necessary, however some of the context may be lost if I were to do that.

FYI – I intend to work on my Ph.D from around 12.00 noon on Monday 28th April until 20.00 UK time as I have taken a holiday to work on other aspects of my Ph.D and see the University staff. I will therefore be able to work on this tomorrow if need be, please send any feedback you have if you get the opportunity and I will modify accordingly.


Kind regards

Lee Wood MSc CEng MIET
Senior Engineering and
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LEE WOOD Ph.D CI IMPLENTATION RESEARCH TOPICS OVERVIEW




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LITERATURE REVIEW

Topics researched to support the work include the following:

- Overview of CI tools
- Organisational learning
- Learning organisations
- Ringelmann Effect (group dynamics)
- Organisational Frames of Reference (organisational identity and overall goal setting/targets)
- Use of Stories (analogies and real life situations)
- Knowledge management (tacit & explicit)
- Innovation (trust & strength of relationship)
- Culture
- Emotional intelligence
- Appreciative Inquiry



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AGENDA

1

First Choice Way Overview – extract from DP DHL website

2

Overview of Current Research by Topics

3

Development of Strategy



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OVERVIEW OF CURRENT RESEARCH TOPICS

Use of CI/PI Tools

- Primary function of this presentation is NOT to detail the CI / PI tools portfolio. Rationale is that:
 - They are already widely used across Manufacturing and Logistics sectors.
 - They can be taught in classroom sessions successfully dependent on academic ability of colleagues attending and level of training undertaken. (Often to a very small percentage of overall population).
 - Six Sigma requires understanding of standard deviation, statistical analysis processes and mathematical competence to high level.
 - DMAIC requires minimum 5 day training event to develop first level (Bronze) competency. Not available to vast majority of colleagues.
 - Significant costs may be necessary to formally train colleagues to high competency levels required.
- Above do not form the main expectation DP DHL have for the majority of colleagues to be involved in First Choice Way / CI / PI activities. Target processes / projects include:
 - Katzon awards can be attended by all colleagues with guidance and support – no academic bias.
 - Colleague involvement in brainstorming sessions including support to CAPA successes.
 - 5's programs – developed over extended period embracing all levels of colleagues.
 - Tangible benefits seen by all.
 - Supports a better place to work ethos.
 - Does not require significant costs to implement. Should be BAU activity at ALL sites.
- For reference only. Known tools in frequent use include:
 - 5's, Katzon, DMAIC, CAPA, PDCA, TQM, TPM, JIT, FMEA, FMECA



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BACKGROUND – EXTRACT FROM DP DHL

First Choice is the worldwide service optimisation campaign developed by Deutsche Post DHL to fundamentally change the way it does business. The aim of First Choice is to provide our customers with service excellence (fast, best, thereby becoming (or remaining) their first choice among service providers. The thrust of First Choice is to create greater customer focus among employees and within business processes in order to provide customers with absolutely unbeatable service. Our services should make the lives of our customers easier, giving them more time to focus on their core business.

The success of First Choice hinges on the involvement of each and every employee at Deutsche Post DHL. All 450,000 employees must be encouraged to develop and implement improvement measures in their particular area of work. They bring valuable first-hand experience and insight to the table. To support them in this service optimisation process, First Choice provides employees with a tried and true method for identifying problem areas and developing solutions to right them. This includes specially designed tools and formats.

The First Choice Way makes use of various tools borrowed from the Six Sigma and Lean methodologies. The so-called DMAIC cycle (Define, Measure, Analyse, Improve and Control) is at the heart of the method employed by First Choice. Using this method, we have been able to improve our service performance significantly in a highly structured and systematic way.

Whereas Six Sigma and other strategic management tools, such as Katzon or the Toyota Production System, focus primarily on the manufacturing industries, Deutsche Post DHL's First Choice is a standardised approach for continuous process optimisation in the area of logistics, making it applicable to the entire service industry. First Choice makes process excellence an all-inclusive endeavor by actively involving every single one of the company's employees.



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OVERVIEW OF CURRENT RESEARCH TOPICS

organisational Learning

There has been an acceptance, in international best practice organisations, of an organisational Learning approach to CI both in products and in key processes (Bloor et al, 2000).

organisational learning is a concept used to describe certain types of activity that take place in an organisation where the embedding of individual and group level learning form part of the organisational structure and processes.

Key themes

- organisational learning is based upon the transfer of knowledge and experiences from teams or individuals to the very core of an organisation.
- organisational learning is a concept used to describe certain types of activity that take place in an organisation where the embedding of individual and group level learning form part of organisational structure and processes.
- It involves the transfer of information from the relatively familiar domain of individual learning, known as the source domain, to the complex target domain, the organisation.
 - Putting this into context the knowledge and learning of individuals is stored in a neat and tidy physical location, our brain. The repository, in our case the organisation (COIN or iShare environments for example) is a complex entity with a vast array of structures and processes embedded at the heart of it. We have to understand how to best use these tools for our colleagues to share knowledge and also retrieve and use it.



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organisational learning - Single / Double Loop learning

Single-loop learning is associated with incremental change by applying new methods, then looking for feedback on that consequence in order to make necessary adjustments and revisions. Double-loop learning is linked to radical change involving strategic/lateral changes (Eastley-Smith and Araujo, 1999).

Identified area of concern: Engagement with employees within the feedback population is required to ensure that any feedback received is objective and does not portray a picture based on perception of employees who are perhaps not content with their work tasks or the management. This can lead to false messages flowing into an organisations management structure with unnecessary plans to mitigate bad feeling issues being put together rather than using resource effectively to solve genuine business concerns. Schein (1985: 52) captures this, offering a thought provoking summary of organisation and employee behaviours;

- Employees are primarily motivated by economic incentives and will do whatever affords them the greatest economic gain.
- Since economic gains are under the control of the organisation, the employee is essentially a passive agent to be manipulated, motivated and controlled by the organisation.
- Feelings are, by definition, irrational and therefore must be prevented from interfering with a persons' rational calculation of self-interest.
- Organisations can and must be designed in such a way as to neutralise and control people's feelings and therefore their unpredictable traits.
- What is DP DHL view on above perception of colleague behaviours?
 - Maybe controversial statements?
 - Do we have elements of this?
 - How would we manage this from a project implementation perspective?
 - Management skills set - what attributes are key for success and ability to win hearts and minds?

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OVERVIEW OF CURRENT RESEARCH TOPICS

Learning organisations

Learning organisation refers to a particular type of organisation which supports the learning and expression of its workers through experimentation, managed risk taking and open discussion, delivering success to the organisation. A learning organisation is typically one which is good at organisational learning.

- Many organisations emphasize the importance of teams, relationships, and networks as the basis for effective transfer of their knowledge. However O'Dell et al. (1999) determined that documenting a practice carried out by an organisation does not in itself guarantee transfer of the knowledge to others.
- Some companies emphasize the importance of sharing knowledge between colleagues informally without capturing it in a 'corporate memory' repository; however benchmarking partners also share knowledge through structured mechanisms and learn approaches (Knowledge Management).
- An identified difficulty of achieving accurate learning is that organisations face an increasingly complex and fast changing environment, identifying robust cause and effect relationships can be difficult.
- Learning can become institutionalised. This can be categorised as: organisation norms known as "compliance traps" including processes that may have proven to be successful in past, however they have not been formally questioned to ensure their validity or effectiveness for the present and future needs of the organisation. Many reasons are possible for this to occur;
 - Complacency, underestimating or not seeing the need, change in business leadership, expectations leading to priority shifts and direction. Professional / personal involvement in previously successful projects that (management) individuals are not prepared to support necessary changes to.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Table 1. Definitions of Organizational Learning

Definition	Perspective	Nature of Study
"...a definition of organizational learning as the acquiring, sustaining, or changing of intersubjective meanings through the enfolded vehicles of their expression and transmission and (through) the collective actions of the group" (Cook & Yanow, 1993, p. 384, emphasis in original and bracket added).	Cultural	Descriptive
"Organizational learning refers to the process by which the organizational knowledge base is developed and shaped" (Srivastava, 1981, p. 15).	Cognitive	Descriptive
"An entity learns it, through its processing of information, the range of its potential behaviors is changed" (Oster, 1991, p. 89).	Cognitive and behavioral (potential)	Review
"...organizations are seen as learning by encoding inferences from history into routines that guide behavior" (Levitt & March, 1988, p. 320).	Cognitive and behavioral (potential)	Review
"Organizational learning means the process of improving actions through better knowledge and understanding" (Fol & Lyles, 1985, p. 803).	Cognitive and behavioral (actual)	Review
"By the term 'organizational learning' we mean the changing of organizational behavior" (Swieringa & Wiersema, 1992, p. 33).	Behavioral (actual)	Prescriptive

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Learning organisations

What constitutes a learning organisation? If a PowerPoint presentation is put together and conveyed to colleagues does this really constitute the prerequisite for a change program or some other form of work related learning?

- Engagement - Who and how?
- Active leadership - How to measure effectiveness of individual / team training event.
- Awareness of those delivering training as to audience ability to absorb information provided and use it.
- Use of differing methods to communicate the 'learning activity' (Skill / compliance / quality of delivery).
- Leaders should be learners and coaches promoting the development of employees through mentoring. This contributes to leaders becoming sensitised to the opinions of colleagues supporting a responsive attitude to their opinions thus encouraging interest in colleagues who see true engagement from organisational leadership.

Learning organisations who develop their staff see the reciprocal benefit of their learning through contribution to the on-going sustainability and transformation of the organisational framework. Evidence suggests management and workers will benefit with the demonstration between them becoming less adversarial supporting an environment where workers realise increased levels of participation in major decision making processes through offering opinions that are truly valued and taken into account.

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organisational Learning - Evidence within published work suggest that;

- Identical systems can be implemented very differently by organisations, dependent on their existing routines, personalities and hierarchies. The word 'learning' affords a certain level of positivity and organisational learning is typically associated with notable organisational improvements.
- Visible leadership from the top of the organisation is fundamental. How does this message reach all target populations?
 - What messages are conveyed as the distance from the source increases?
 - What context / importance is placed upon turning individual or team ideas into organisational reality.
- The diversity of ways that learning is conceptualised within learning literature supports the view that the many different processes can be used characterised into three distinctive types;
 - Learning through formal training.
 - Learning through the use of interventions in the workplace and
 - Learning that is embedded through exposure to day-to-day activities and individuals' reflections
- Difficulties with inaccurate or ineffective learning are evident, suggesting that individual biases may affect the outcome of experiential learning. **How do we overcome this?**
- When expanded to the organisational level the means by which data is collected, scanned and interpreted may constrain the frame of relevance with the diffusion of information adding a further complication, in essence the original learning / meaning may be lost.

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Ringelmann Effect (social loafing) - Potential to reduce teamwork output.

The Ringelmann effect is particularly interesting because it seems to violate both common stereotype and social psychological theory. Common stereotyping suggests that the sense of team participation of individuals leads to increased effort, that group morale and collective values spur individual enthusiasm and that by pulling together groups can achieve any goal, that in unity there is strength and the sum of the individuals will not surpass the sum of the team.

- Ringelmann completed studies into the capability of teams/groups and examined the potential for them to fail to meet their full potential.
- Motivational loss, also known as "social loafing" can detract from team capability. This is based on a reduction in the effort of an individual when they work in a team environment.
- Group members tend to rely on their coworkers or co-members to provide the desired effort required for a communal task to be completed.
 - The phenomena tends to be more common where individual contribution to team effort is not easily identifiable, often caused by an inability to separate team from individual performance.
 - Ringelmann last results showed that as group size increased the performance decreased more than would be expected by addition of their collective effort.
 - Evidence suggests that members exhibit social loafing even when they are unaware that they are doing so (Karau and Williams, 1993). This makes identification and resolution problematic.

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Ringelmann Effect – Mitigation

In order to reduce the level of social loafing in a group, several ideas have appeared in the literature. A number of these solutions are described as follows:

- **Increase identifiability**
 - When people feel as though their individual ideas or outputs are identifiable, for example through evaluation, they are motivated to exert greater effort towards a group task (Harkins & Jackson, 1985).
 - Conversely, social loafing phenomenon has been found to be more common where individual contribution to the team effort cannot be easily identified.
- **Minimise free-riding**
 - Individuals who exhibit social loafing typically fail to contribute as expected because they believe others will make up for their lack of effort. Identifying specific tasks and objectives will reduce this.
 - Individual members should be made to feel like they are an indispensable asset of their team/ group. In this way they feel a stronger obligation to contribute.
 - By increasing the perceived importance of personal roles within the team colleagues tend to work harder towards achieving group goals (Karr and Brann, 1983).

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organisational frames of reference (OFOR)

The domain of inquiry for OFOR (Shrivastava and Schneider, 1984) is defined in terms of three basic dimensions as:

- **An organisations definition of itself or organisational identity.**
 - All organisations have an identity and image to define their overall goals and targets. It may not be fully explicit, however it will guide the future of product market domain for current operations, future growth strategies, the social identity of the organisation and the definition of its role in a broader social context.
- **The definition of individual-organisational relationships.**
 - organisations implicitly define relationships of individual members in relation to subgroup level, department level and organisational level. These relationships moderate the opportunity for conflict to develop between individual and group interests. For example, some organisations treat their employees similar to family members, whilst others give them impersonal and official titles.
- **Definition of organisation-environment relationships.**
 - organisations stance toward their environments define problems that become relevant for inquiry. Although most organisational inquiry is contained within the boundaries of these parameters, the boundaries can be unclear and implicit. They require continuous re-negotiation in strategic decision making situations particularly if the problems at hand are novel or ill-structured (Mitroff and Emshoff, 1989).

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Ringelmann Effect – Mitigation

- **Set goals**
 - Groups that establish clear, explicit goals tend to outperform groups that have lost sight of their objective (Harkins and Szynanski, 1989).
 - Setting unambiguous goals is believed to stimulate an array of capability-enhancing processes, including increased commitment to a team/ group, thorough planning and quality-monitoring of work, and improved effort / exertion (Wardlaw et al., 1991).
- **Increase involvement**
 - Another way to reduce social loafing is to increase the level of involvement group members have with the task or goal at hand. This can be achieved by turning the task into a friendly competition between group members, or attach tangible rewards to outcomes.
 - Recognition can provide a positive experience for an individual or team and make all members feel a part of the target, more important entity.
 - Allocating colleagues more responsibility prompts their giving greater thought to their work and thus, often produces not only greater productivity, but is likely to improve efficiency and quality.

Whilst not wanting to be negative regarding the capability of teams (groups) to succeed it is prudent to note that, when suitable participants are not available, by skill set or other distraction, teams may not be the best option for successful project outcomes in all cases.

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organisational frames of reference (OFOR)

- Implicit OFOR are organisational culture and ideology with influence over fundamental strategic decisions.
- The inherent differentiations in organisations caused by industry sector, environment and technology create a natural diversity, however OFOR transform this generalised variance into uniqueness of an organisation.
- OFOR facilitate the development of distinctive cultures and identity for organisations and systems of control.
 - They provide a stable framework through which members are able to interpret their own organisational world and support it.
 - They protect organisations from information overload by screening out unnecessary information and reduced uncertainty.
 - They set rules for developing behaviours and create a context in which decision making and action are possible.
- In summary OFOR provide a means to explain and help define organisational boundaries. An example here might be that a colleague who works for DHL, at the site of a specific customer may see (passive) that they are an employee of their customer rather than DHL. This situation (lack of identity) is not supportive of engagement between colleagues and their organisation.

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organisational frames of reference (OFOR)

organisational frames of reference (OFOR) consist of cognitive elements and operators with reality tests that select, organise and validate information; they are further characterised by a domain of inquiry and manner of articulation and codification.

- The use of subjective personal experiences in (some) organisations will be classed as a legitimate source of information; in these organisations qualitative data from personal sources are most commonly used for strategic decision making (Wardlaw, 1993).
- In contrast to above, other organisations use quantifiable, numerical, objective data generated through internal management information systems based on explicit knowledge.
- The language used in organisations often includes technical and business specific vocabulary such as financial to carry out their business effectively. Potential concerns include:
 - Excluding those who are not as familiar with the language leading to little or no engagement and is a watch-out for organisations that may miss this and deliberate as to why their employees are not as engaged as they might be.
 - In the technical world (including over use of acronyms), the use of technical language can be used to exclude those viewed as less technical, fact based. In approach and supports an objective view to learning in line with Snel (1973). This will likely lead to limited or no engagement with target colleague audiences.

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Use of Stories (analogies and real life situations)

"Stories that dramatize or illustrate managerial systems, values, and norms are more likely to be believed and acted upon than mere statements of policies and norms. Therefore, managers should mine organisational lore for stories that support the goals and mission of the organisation". When leaders harness the transformational strength of language to motivate and inspire, they will likely conclude that organisational storytelling makes sense and continue to embrace its effectiveness (Senge et al., 2001).

- Stories represent and shape organisational culture and support resolution in ambiguity by providing meaning to all levels of colleagues in an organisation.
- They work to change beliefs and behaviours through both cognitive and emotional processes.
- By exemplifying and dramatising company values, systems, and norms, stories generate commitment.
- When leaders harness the transformational strength of language to motivate and inspire, they will likely conclude that organisational storytelling makes sense and continue to embrace its effectiveness.
- Stories about how an organisation handled a competitive threat, survived or prospered through a recession, advanced a new product or developed a valued employee help to reaffirm an organisation's picture of itself (Schein (1985).

Case studies, stories, analogies, real-life events and other forms of sharing experiences based on storytelling can help an organisation to share knowledge and ideas in a way that increased numbers of colleagues can potentially understand and interpret; this can support their engagement with the organisation and the next loop of improvement opportunities if they also share in this manner.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Knowledge Management

The link between KM and Knowledge Management (KM) provides a further area requiring probing to understand the potential shortcomings in KM practices and how this relates to the CI capability of an organisation and subsequent business performance (Sagor and Bansal, 2007).

Best Practice KM

- Organisations pursuing KM as a business strategy believe KM is central to their ability to grow and compete (CI Dell et al., 1999).
- These organisations rarely need to make a business case for the concept and often have a formal "knowledge champion" in place.
- Significant resources are embedded in all areas of the business to ensure that ever-improving knowledge is accessible to and through their people, processes, and products.
- In these organisations knowledge is viewed as a tangible product with the principle that it will have a significant impact on the profitability and viability of the enterprise.
- The strategy is pursued either by integrating it with the overall business strategy or by treating it in parallel with other strategies.
- Revenue enhancement, cycle-time reduction, and reuse of knowledge are frequently the driving forces behind corporate KM initiatives.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Innovation

While some innovation activities require specialized knowledge, which can be bought in if required, the bulk of them can be addressed, to acceptable standards, with a high level of workforce participation and engagement (Imai, 1997; Boer et al., 1999).

- Innovative activities in a previous period can have important effects on an organisation's decisions for future innovation ideas by providing a knowledge base that can rapidly absorb technological compliance from external sources (Lawitt and March, 1998).
- A key element is understanding innovation can typically be interactive in nature requiring support between organisations, groups and individuals if it is to be successfully implemented.
- Exploring knowledge sharing behaviours in innovation processes involving collaboration between different organisational businesses suggests that the quality of knowledge sharing is affected by two parameters:
 - Firstly, the closeness of the relationship between network partners and
 - Secondly the relatedness of their knowledge; if only a limited amount of knowledge was shared the process can become a complex and difficult one to develop successfully.
- Organisational learning is identified as an important parameter in the accomplishment of logistics and supply chain goals with Flint et al. (2005) identifying organisational learning as a contributor to logistics innovation.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Knowledge Management

- Rather than to drive cost down KM supports a view of materiality affecting an organisations top-line revenue and earnings per share. Indicative of Appreciative Inquiry (positivity) approach to management.
- There is a suggestion in published works that the move towards more information and knowledge intensive industries, such as the service sector, would replace manufacturing industries as a key area of wealth generation (Ball, 1973).
- Available literature offers an argument for the increase in managerial and professional work (Flanning et al., 2004), however this increase is offset by a similar proportion of growth in low skilled, service oriented work (Thompson et al., 2001).
- Published literature suggest there is an increasing polarisation between highly skilled and highly paid jobs to lower skilled and lower paid jobs.
- Privileging of theoretical knowledge over tacit knowledge is also evident within the literature review and this had led to disputes in how to classify certain roles against knowledge work criteria.

Do we administer our knowledge management processes effectively? Are the portals we have available and readily accessible by our colleagues when they need information? Do we have an open mind to implicit (tacit) information importance or do we base our outcomes purely on explicit Knowledge Management, is our inhouse Consulting business explicit and/or tacit in how knowledge is assembled and disseminated?

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OVERVIEW OF CURRENT RESEARCH TOPICS

Innovation

- The majority of manufacturing industries around the world are obligated to provide their customers with innovation and rapid response to ever changing requirements, this has driven other sectors such as the supply chain to follow suit (Riad, 2006).
- Organisational strategies that encourage commitment and risk taking and promote creativity and innovation including employees at all levels have been increasingly recognized as key factors in long-term organisational success.
- Potential benefits of employee empowerment identified include stronger task commitment, higher levels of initiative in carrying out role responsibilities, more innovation and learning, higher job satisfaction, and stronger organisational commitment which is predictive of lower levels of turnover.
- With the additional complexity of sharing tacit, context specific knowledge the overall set of parameters for implementation of innovation become complex in nature and thus require the skill set of the innovation leader to support these needs (Holsop, 2009).
- Leadership's role is to monitor and support innovations, this requires them to nurture and create awards and processes to encourage emergent and self-organizing change.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Innovation

Innovation is defined as "the deliberate modification, or transformation, by an organisation of its products/services, processes or structures (Holsop, 2009).

organisational innovation covers a multitude of areas and the scope can change from small changes to large-scale projects across products and services, or process focused affecting organisational structures.

- In an increasing global economy, continuous improvement and innovation have become pre-requisites for staying competitive.
- The proposition that a CI culture gives rise to an innovation driven culture is of particular significance; the development of an innovative culture is crucial to the prospects of an organisations ability to continually develop new customer offerings and future strategic direction (Singh and Singh, 2013).
- The need for constant development of an organisations competitiveness and flexibility to meet customer demands supports the need for new methods to be introduced continually (Black, 1981).
- The need for sustained innovation, an output from CI programs, in order to ensure business survival has been well documented (Hamal, 2000).
- Considerable attention has been focused on ways in which organisations manage the process of innovation. An important aspect of this concerns the question of extending involvement in innovative activities at all levels of an organisational workforce.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Innovation (trust & strength of relationship)

- Trust is a necessary condition for cooperative behaviour between individuals, groups and organisations (Jones and George, 1998; Hansen, 2002).
- Many organisations do not share market information with their suppliers, as mutual trust is lacking.
- The sharing of strategic information is critical to organisations that are attempting to learn from one another to improve supply chain performance as the opportunity to learn from customers and suppliers would provide managers with the information required to implement CI more proficiently.
 - This suggests that unless managers acquire complete data sets of information they will experience difficulties in targeting their CI efforts accordingly.
- Business performance measurement must be transparent and communicated at regular intervals to all levels of employees to support a culture of trust (Baker, 2003).
- Innovation can typically be interactive in nature requiring support between organisations, groups and individuals if it is to be successfully implemented.
- Sharing or having common knowledge will be necessary, collaboration between organisational communities that may be from divergent cultures or have differing values may be required and social relationships based on trust will have to be built.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Innovation (trust & strength of relationship)

- It is accepted within literature that strong relationships between partners in a supply chain lead to a number of beneficial operational outcomes including a reduction of inventory, transportation, ordering and warehousing / handling costs (Mentzer, 2007).
- Sharing of complex innovative knowledge was most effective when strong relationships, based on trust existed between those involved as the sharing of such knowledge requires extensive interactions. Closeness of relationship and trust become congruent expectations with regards to knowledge sharing.
- Personal expectations**
 - Personal knowledge is a valuable commodity that should not be shared casually and when faced with decisions about what knowledge to share with whom, colleagues make judgements about the trustworthiness of their peers.
 - The role of trust is pivotal and without it, irrespective of any formal knowledge-sharing requirements being in place, colleagues will not share their knowledge.
 - Colleagues will not share with those deemed untrustworthy and where they might act inappropriately with the knowledge expected to be shared. (Professional integrity).
- Quote from formal study:**

If you haven't got trust and confidence then it doesn't matter what else you've put in place, or what other situations you put in place to try and encourage cooperation, it's not going to happen! (Andrews and Colebatch, 2000).

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OVERVIEW OF CURRENT RESEARCH TOPICS

Culture

- Garrison and Rows (1994) suggest that many European managers have a total lack of understanding in relation to the essence of diverse managerial approaches required in differing countries.
- They have very little understanding of the ideological values and macro-systems that put into context the business culture of a specific country.
 - Cross-cultural teams may be complex within their structure, including wide behavioural distinctions.
 - Differing legal requirements, time zone and language barriers can add to the cultural differences of varying nationalities.
 - This diversity associated with cross-cultural organisations is likely to create the potential for more conflict than a mono-cultural one when differing value systems, perspectives and beliefs are brought together within the workplace.
 - The diverse cultures and values of the personnel involved within cross-cultural teams can not only lead to conflict, but the methods of dealing successfully with conflict may also vary between cultures. Employees as well as managers must be trained in conflict management within this environment if the organisation is to be successful in leveraging diversity.

Strategy is an important area in the shaping of a corporate culture, organisational objectives are significant drivers in the culture change requirements of a business and their influence is not to be underestimated. Employees may become confused in relation to their goals if published policies are not carried out in practice by their organisation.

Conflict can be caused for example when profit is put before ethics such as fairness. Culture develops through social learning mechanisms whereby actions and behaviours associated with favourable outcomes tend to be repeated and developed, leading to the point where they become behavioural norms (Baron and Walters 1994).

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OVERVIEW OF CURRENT RESEARCH TOPICS

Innovation (trust & strength of relationship)

Three specific relating to trust:

- Companion trust:** refers to trust that is based on judgments of goodwill or personal friendships. The trust rests on a moral foundation that others will behave in a way that does not harm other members of the network.
- Competence trust:** this trust is based on perceptions of the others' competence to carry out the tasks that need to be performed and will be important where the skills needed to perform a task or complete a project are not able to be found within one person.
- Commitment trust:** this trust stems from the contractual agreements between the parties. In this case, the trust is developed on an institutional basis. Each party is expected to gain mutual benefit out of their relationship, and so can be relied upon to be committed to deliver according to the details of a contractual obligation.

Commitment trust falls in between the first two in terms of how resilient it is. It is more resilient than competence-based trust because the contractual agreement underpinning commitment trust will encourage a continuation of the alliance even if those involved stop respecting each other's abilities (they know they can resort to the contract if all else fails).

It is not likely to be as resilient as goodwill or companion trust. Partners that fail to demonstrate their commitment by delivering their share of the work on one contract are likely to be dropped from any future joint collaborations.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Emotional Intelligence (EI)

- "Emotional intelligence concerns the ability to carry out accurate reasoning about emotions and the ability to use emotions and emotional knowledge to enhance thought" (Mayer et al. 2008).*
- Emotion has increasingly been acknowledged as important in explaining variation in key cognitive and social processes, influencing how events are interpreted.
 - Emotions arise in response to on-going, implicit appraisals of situations with respect to positive or negative implications for one's goals and concerns (Schwarz and Clore, 2007).
 - Emotions are governed by laws and emerge and manifest themselves the way they do because lawfully operating mechanisms dictate responses. We are all subjected to these mechanisms within organisations and are expected to obey the rules thereof.
 - Literature supports EI as a key element on which human resource professionals and organisations must focus with research indicating a correlation between EI and top performers and general performance climates in the workplace (Mumhouse, 2007).
 - EI is a critical factor in the effective leadership playing a significant role in manager's performance, especially where delegation of work and power are concerned.
 - Understanding that EI is tied to successful leadership, it follows that skills of emotionally intelligent people, including flexibility, conflict management, persuasion and social reasoning, become increasingly important with advancing levels in leadership hierarchy (Mendall and Phawani, 2005).

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OVERVIEW OF CURRENT RESEARCH TOPICS

Culture

"Culture is the collective programming of the mind which distinguishes the members of one group or category of people from another" (Geert Hofstede, 1994).

What is organisational culture?

- The values and behaviours that contribute to the unique social and psychological environment of an organisation.
- An organisation's aspirations, experiences, philosophy, and values that hold it together;
 - Expressed in its self-image, inner workings, interactions with the outside world and future expectation
 - Based on shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid.
- Organisational culture is shown by the ways the organisation conducts its business, treats its employees, customers, and the wider community.
- The extent to which freedom is allowed in decision making, developing new ideas, and personal expression.
- How power and information flow through its hierarchical levels.
- How committed employees are towards collective objectives.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Emotional Intelligence (EI)

- Studies looking at career performance of executives reveal that managers who are aware and have true understanding of their own and others' emotions, and are able to use that understanding to effectively motivate, inspire and connect with others are far more effective than traditional managers who actively separate emotion from the workplace promoting methodical, detached, micro-managing style of supervision (Coleman et al. 2002).
- Based on evidence from 121 companies around the world Goleman (1998) suggested that EI abilities for performance excellence have twice the impact of technical and cognitive abilities. A comparison between senior managers and middle managers targeted for promotion resulted in significantly higher scores among senior managers in EI and the competency areas of innovation, commitment, political awareness, leadership, change catalyst, and team capabilities (Langley, 2000).
- There is a high correlation between EI and inspirational motivation, indicating that understanding emotions is particularly important in leadership effectiveness.
- Transformational leaders bring about their goals by encouraging their followers with visionary goals. They challenge the status quo and are genuinely concerned with individual needs and the importance of giving feedback. Their respective skill sets overlap with EI including storytelling, comprehensive language skills and a positive attitude to life (Stangor, 2009). Transformational leaders create positive outcomes through careful management of impressions and generate high emotional commitment to those around them.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Emotional Intelligence (EI)

- From 1994 to 2000, over two-thirds of information technology projects failed to meet the three constraints of schedule, budget, and scope due to lack of project managers' soft skills (Sahr-Kirz, 2011).
- The study supported a way of recognizing EI competencies that best fit with project managers' personality styles for developing effective soft skills which contribute to project failure rate reduction.
- In globally diverse teams, psychological factors such as emotional and cultural intelligence are related to the quality of team collaboration and project success (Shachar, 2008).
- Strongman (2003) considers that the emotional climate and thus the potential to affect EI may differ from culture to culture depending on underlying social, economic and political circumstances.
- Differing emotional climates include fear, security, motivation, instability, confidence, satisfaction and conversely dissatisfaction. The overview gained is that the emotional state of individuals, groups and potentially nations, can be affected by many differing conditions which may be identifiable or subtly hidden within the culture, varying in line with the value systems of respective cultures.
- Richard Boyatzis (1982) completed a study of over two thousand supervisors, middle managers and executives at twelve different organisations and found that of the sixteen abilities that distinguished star performers from those classed as average, all but two were emotional competencies. This suggests that further understanding of EI and its attributes are key to improving managerial competence levels.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Appreciative Inquiry (AI)

Copeland and Whitney (2001) published a set of five AI principles that are widely cited and applied today. They were in response to concerns about the positioning of problem solving in organisational change efforts relating to AI.

The **constructionist principle** proposes that what we believe to be true determines what we do, and thought and action emerge out of relationships. Through the language and discourse of day to day interactions, people co-construct the organisations they inhabit.

The **principle of simultaneity** proposes that as we inquire into human systems we change them and the seeds of change, the things people think and talk about, what they discover and learn, are implicit in the very first questions asked Copeland Whitney (2001).

The **poetic principle** proposes that organisational life is expressed in the stories people tell each other every day, and the story of the organisation is constantly being co-authored. The words and topics chosen for inquiry have influence far beyond the meaning of the words themselves.

The **anticipatory principle** conceives that what we do today is guided by our image of the future. Human systems are forever projecting ahead of themselves a horizon of expectation that transports the future powerfully into the present as a mobilizing agent.

The **positive principle** proposes that momentum and sustainable change requires positive affect and social bonding. Sentiments like hope, excitement, inspiration, camaraderie and joy increase creativity, openness to new ideas and people, and cognitive flexibility. They also promote the strong connections and relationships between people, particularly between groups in conflict, required for collective inquiry and positive change (Ludema et al., 1997).

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OVERVIEW OF CURRENT RESEARCH TOPICS

Appreciative Inquiry (AI)

Copeland and Whitney (1996) define AI as "the cooperative search for the best in people, their organisations, and the world around them. It involves systematic discovery of what gives a system life" when it is most effective and capable in economic, ecological, and human terms". AI seeks to effect change / transformations by focusing on organisations members positive experiences. AI is a form of action research designed to help organisations create new, generative images intended to transfer thinking to a more positive and generative consciousness in order to achieve transformational change (Mamrak and Grant, 2008).

Key elements

- It advocates collective inquiry into the best of what there is, facilitating a drive forward could be followed by collective agreement of a future state that is positively compelling and therefore does not require the use of incentives, coercion or persuasion for planned change to occur (Bushman, 2013).
- AI involves the art and practice of asking questions that strengthen a system's capacity to highlight positive potential. It mobilizes inquiry through crafting an unconditional positive question often involving hundreds or sometimes thousands of people.
- The intent of AI is to engage all stakeholder groups in inquiry into the positive potential for cultural and systemic change (Senge, 2006).
- Engaging the right people, especially powerful sponsors, in identifying a focus that is of high interest to those leading the organisation and compelling to stakeholders is critical to overall success of AI programs.

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OVERVIEW OF CURRENT RESEARCH TOPICS

Appreciative Inquiry (AI) The 4-D cycle model

The 4-D cycle model identifies four phases in AI that occur after the "affirmative topic" is chosen. The affirmative topic is the focus of the inquiry such as increased customer satisfaction, improved health and safety, more effective operations; it is phrased in lively, inspiring language e.g. inspiring fanatically loyal customers (Kessler, 2013).

Discovery. During this stage participants reflect on and discuss the best of what is concerning the object of inquiry. Often participants are interviewed about their own "best of" stories and this is recognised as an innovative approach to adding value through AI (Kessler, 2013). Team members are asked for their personal experience of the "affirmative topic" (i.e., the focus of the inquiry) at its best, their best work / team work or customer satisfaction experience for example.

Dream. During this stage participants are asked to imagine their group, organisation or community at its best in relation to the affirmative topic. An attempt is made to identify the common aspirations of system members and to symbolize this in some way (Bushman, 2011).

Design. With a common dream in place, participants are asked to develop robust proposals for the new organisational state. The essence is on planning and prioritising processes that work well to achieve the common dream by building on current strengths and experiences.

Delivery/Destiny. The changes are implemented in this phase, widespread agreement for the design statements are sought, an award is orchestrated where participants make self-chosen commitments to take action consistent with any design element, and leadership makes clear that there will be no action plans or committee. Leadership's role is to monitor and support those innovations they want to nurture and create events and processes to energize emergent and self-organizing change (Bushman, 2011).

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OVERVIEW OF CURRENT RESEARCH TOPICS

Appreciative Inquiry (AI)

The theory's central management insight is that teams, organisations and society achieve immediate direction we collectively, passionately and persistently ask questions about (Bushman, 2013)

- New organisational development practices depend on the ability to shape dialogue among participants. This is done by carefully choosing the topic to focus on and the questions to be asked.
- The idea is to ensure that the dialogue focuses on positive processes or practices of the respective organisation encouraging participants to recount stories that personify and endorse positive features.
- AI exploits the possibility of change. The recognised originator of AI, David Cooperrider, emphasizes the limitations of problem solving for expanding human horizons and possibilities. The most powerful force for change is a new idea.
- To develop organisations need new forms of inquiry and change that are generative: they help us discover what could be, rather than try to fix what is (Bushman, 2013).
- "When successful, AI generates spontaneous, unscripted, individual, group and organisational action toward a better future" (Bushman, 2007).

The AI model is based on the assumptions that organisations are a socially constructed phenomena, which have no tangible reality. The limitations of organizing are limited only by the human imagination and the agreements people foster with each other. It seeks to create processes of inquiry that will result in better, more effective, genial, and vital social systems; assuming widespread engagement by those who will ultimately implement agreed changes.

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DEVELOPMENT OF STRATEGY

Training – Undertaking specific Lean / CAFR / DMAIC training is required for those looking to deliver / implement PI programs to develop their underpinning knowledge however the following are offered as areas to note;

- Those delivering PI training (at all levels) must be aware of the audience participation level taking place through specific training sessions and ensure desired outcomes are achieved;
- What if evident that sessions have not gone well. How identify, measure and resolve this?
- Is there a requirement for minimum 12 month forward looking review of prior participation ability to deliver business PI projects successfully and more importantly recurrently.
- Engagement and Leadership through training delivery is key to improving successful outcomes.
- Winning hearts and minds will support success; engaged leadership and story telling work.
- How do we choose PI Champions? Is it always the right candidate from a business area (by position) or is hitting the expected numbers of PI champions expected? Management pressure?
- Self-awareness (EI) can support the quality of outcomes if the delivery of training is to a high standard for; engagement, participation and integrity where mutual trust is evident / encouraged.

A blend of professional PI competence and training delivery competence are required for successful training to take place. A training pack may be required from a delivery, rather than technical perspective for PI implementers.

Consultants may deliver training as per specific contracts, however this may not fulfil the delivery expectations required for future success and development of PI colleagues and teams.

The development of a generic PI Implementation Pack would support a consistent approach to delivery and implementation of on-going PI initiatives. This could be tailored for local delivery across culturally / ethnicity different regions through local management input and blessing towards local colleague expectations.

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DEVELOPMENT OF STRATEGY

Benchmarking - organisations need to perpetually seek ways to reduce costs and increase effectiveness and efficiency to grow. Benchmarking results against internal and potentially more informative external competition / customers / suppliers to support understanding and positioning of DHL for CI / PI maturity is beneficial.

Quantifiable performance comparisons indicating opportunities for improvement can provide a strong business case for new initiatives and investments. Defining a roadmap with measurable targets and goals can further support the argument for change and improvement. Insight comes from comparing internal numbers to those outside of the target organisation and there are numerous methods organisations can use when comparing metrics including: High tier (top) organisations (best-practice method), relative peer groups (competitive method) or a combination of these two methods.

Benchmarking criteria:

Objective - Often, third-parties remain objective and enable greater confidence in results and recommendations. Internal processes may be flawed and the difficulty of measuring 'apples with apples' objectively may be avoided leading to internal conflict if metrics used are perceived as biased towards a particular operation or function.

Expertise - If benchmarking has taken place in DHL, what specific benchmark training and experience across different types of contract, customer size, CI / PI maturity, geographic locations and culture have we used?

Credibility - Using proven tools and methodology for managing benchmarking will provide consistent, predictable outcomes. If we internally benchmark this could have an emotive element attached to it unless the process is seen to be transparent.

What is our view on benchmarking against the best of manufacturing and/or logistics for CI / PI implementation and on-going sustainability of processes?

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DEVELOPMENT OF STRATEGY

Overview - CI/PI Implementation Conclusions - based on PhD Literature review

- How do we simplify the vast array of processes / portals we have to improve accessibility?
 - Is there too big now to search or use effectively? (Continuous issue?)
 - Is there search engine good enough to home in on what we require from our searches?
 - Google as a benchmark?
- Do we need to make our corporate communication systems leaner? (Continuous issue?)
 - Use stories to get our message across to our colleagues when appropriate?
 - Is our communication language too technical / academic in nature?
 - Are we using more personal approaches such as Podcast enough?
 - Have we reviewed our methods of communication to check effectiveness?
 - Target all levels
 - Test depth of understanding at all levels
- What do we do when improvement teams do not deliver as expected?
 - What consequences are administered formally or informally?
 - Blame and shame or support them?
 - Do we interrogate processes for root cause of failure?
 - How do we effect damage limitation to on-going projects when failings do occur so they pick back up and hit the agreed goals at some later agreed date?

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DEVELOPMENT OF STRATEGY

Internal Consultancy Support - Global strategy vs. local strategies

Extracts from DP DHL - Inhouse Consulting

Deutsche Post DHL Inhouse Consulting is the international strategy and management consultancy of Deutsche Post DHL. Operating independently through entities and individual consultant teams, Deutsche Post DHL Inhouse Consulting develops solutions with high impact for the international logistics business. Serving top executives, Deutsche Post DHL Inhouse Consulting plays a key role in the consultancy activities within the Deutsche Post DHL Group.

We continuously expand our industry expertise, and develop supply chain concepts, methodologies and tools to address the complex challenges of our customers and deliver innovative and implementable solutions.

- The narratives suggest that the team work upwardly to support senior management teams.
 - Is there any latitude to bring this support to lower levels of management within the PI and other communities? Engagement and development opportunities?
 - Are they missing out on a large amount of tacit and / or explicit knowledge available across our sites through engagement with our colleagues?
 - Would (some) level of exposure to these teams support organisation learning (unembedding our colleagues input into the core of our business)?
 - Are their best practice sharing opportunities between the consultancy and other internal stakeholders / colleagues?

Is there an opportunity to link this group with FCW, PI and other Internal Continuous Improvement teams for the wider DP DHL organisational gain?

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DEVELOPMENT OF STRATEGY

Overview - CI/PI Implementation Conclusions - Based on PhD Literature review

Innovation is fundamental to a successful future for the organisation and CI / PI projects are fundamental in achieving innovation. Have we linked these areas formally in the minds of our site leaders (GMs, Operations and Transport Managers) and higher / lower management areas within the business?

Trust is identified as a basic and very important requirement to all colleagues at all levels in published works if they are to share knowledge and support improvements to their organisation. Without trust and integrity we only have command and control techniques to drive performance. What are we doing to get the next 5% performance out of colleagues? Strategy (2015, 2020) form the basis for this, however all management levels have a part to play.

Cultural differences cannot be underestimated for implementation process and the manner in which they are delivered to localised areas. Sensitivity and understanding are required for success.

Emotional Intelligence (self awareness) is an enabler for colleague engagement and trust. It supports individual managers effectiveness, particularly where delegation and distribution of power are concerned. Managers lacking in softer skills such as EI are identified as reasons for significant failings in project delivery.

Appreciative Inquiry (AI) is the cooperative search for the best in people, their organisations, and the world around them. It effects change / transformations by focusing on organisations members positive experiences. Engaging the right people, especially powerful sponsors in identifying a focus that is of high interest to those leading the organisation and compelling to stakeholders is critical to overall success of AI programs.

Resource, whilst not specifically noted within the presentation resource allocation is key to success in a number of areas. Under resourcing is an identified reason for implementation / project failure and I believe we may be weak in this area. PI Implementation and Project Management are full time positions; they are not an add-on to existing roles.

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DEVELOPMENT OF STRATEGY

Overview - CI/PI Implementation Conclusions - based on PhD Literature review

At this stage of research the following questions are asked and assumptions made, further review is necessary to support them in becoming formal recommendations:

- The basic use and understanding of Lean tools utilised for First Choice Way are known to the PI community however the level of understanding at colleague level requires further development and support if we are to fully engage the mass of our colleagues and then utilise their potential to add value to the organisation.
- Do we understand where we are as a business from a CI / PI maturity perspective.
 - Does current benchmark indicate this?
 - What does it tell us about what we need to focus on?
- The ability to proficiently deliver softer skills through the training / learning process is fundamental to successful outcomes and knowledge sharing activities.
 - Do we train these skills out to PI implementers as effectively the PI tools skills?
 - What training is available to PI Practitioners in developing their softer skills?
 - We require a formal, objective measurement process to be implemented to ensure auditable successes are realised from training awards.
 - How do we ensure that all of the active PI community deliver credible projects and training of colleagues in an on-going basis.
- organisational Learning (awareness and identity) of the business to colleagues is key for engagement and ideas sharing. This is an area requiring continual focus.

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QUESTIONS



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Appendix 8 – Semi-structured Interview Transcript

Summary: This appendix provides one blank copy of the semi-structured interview questions format and one completed version.

Supporting documents include:

- Blank Interview questionnaire.
- Completed transcript

- 1) What do you see as the top 3 to 5 areas DP DHL need to be successful in to drive CI / PI implementation process?

- 2) Why do you think that is? Please give evidence both positive and negative.
- a. How do we motivate colleagues and managers to believe in First Choice way?
 - b. Score out of 10 for DP DHL approach?


- 3) One outcome of the PhD was to understand the potential for a **sybiotic** relationship between organisational learning (OL) and CI / PI implementation as this is noted in the published literature. (close and often long-term interaction between two or more bodies)
- a. Do you think our colleagues feel that they “belong” to DP DHL as part of the overall entity? Any evidence to support your view.
 - b. Are we more a commensalism approach? This is a class of relationship between two organisms where one organism benefits without affecting the other...?
 - c. Do we as an organisation understand the importance of Organisational learning, OFOR for our colleagues?
 - i. Are managers EI competent enough to notice?

- ii. Does the organisation display behaviour to support its corporate image?
- d. Do we use peoples' skills they have away from work?
- e. Where are colleagues in the implementation process – passive or active?
- f. Are we good at learning?



4) Knowledge management (KM)

- a. What does this mean for DP DHL?
 - i. Who is it for?
 - ii. Would colleagues understand it if we talked to them?
- b. Who owns KM in DP DHL?
 - i. How do we measure value?
- c. Where does it sit against company priorities?



- 5) What is your perspective relating to the interaction between CI / PI and innovation?

- 6) What do feel should incentivise colleagues to support Innovation / CI implementation?

- a. Strategy 2020, Focus, Connect and Grow may to be taking away the opportunity to be creative as “everything” will be standard. What is your view?
- b. What should we stop doing?

- 7) The way and who delivers the CI / PI training is paramount. What do you feel are important areas?

- a. Attitude – do they have the audience attention?
- b. Delivery – monotone, academic slant, boring or excellent?
- c. Academic approach to colleagues with little or no academic knowledge.
- d. Think about who delivers CI training, practices and programs, if they are the wrong personalities stop doing it. Use of Stories?
- e. Driven by position, not by project management or presentation skills.
 - i. Self-awareness as to their delivery
 - ii. Feedback from line management.
 - iii. No formal skill-set.
- f. Should there be an agreed non-CI skill set requirement?

- 8) Trust is identified with published literature re importance for colleague and manager engagement and successful implementations. What is your view on this relating to DP DHL position and how would you go about improving it to support CI implementation programs?

- 9) What skills are necessary to implement CI programs? Individual
- a. Presentation skills
 - b. Motivational skills
 - c. Self-awareness
 - d. Academic competency

What skills are necessary to implement CI programs? Organisation

- e. Improve iShare capability to deliver knowledge management
- f. Recognise the importance of tacit and explicit knowledge
- g. General view - Explicit is organisation / tacit in individuals based upon experiential learning. How do we view the two elements?

10) What do you know of Appreciative Inquiry (AI) approach to implementation / issues resolution?

- a. If known what would you suggest in relation to how DP DHL could use it to their advantage?

11) What does CI mean to you?

- a. Score 1-10 for importance to business.

Completed Transcript

- 1) What do you see as the top 3 to 5 areas DP DHL need to be successful in to drive CI / PI implementation process?

Grass roots buy-in and management level trained in PI. There are some PI advocates around the business who have PI related to their roles.

Operation can view as a “nice to have” for PI not of fundamental importance. A number of people can’t or won’t become involved because of day job. Seen as more work, low horizon perspective.

Colleagues have seen initiatives fail – viewed as management failure / fad rather than a part of their responsibility and a part of how they should be working.

- 2) Is DP DHL an organisation that has successfully implemented CI /PI processes presently? Why do you think that is? Please give evidence both positive and negative.
- How do we motivate colleagues and managers to believe in First Choice way?
 - Score out of 10 for DP DHL approach?

Broadly speaking yes. DHL taken tools and technologies from manufacturing into logistics and translated into a form more applicable to logistics environment. Mind-set in logistics is boxes on shelves / parcels by working, a can do attitude. Harder rather than smarter is default response / more labour etc. Sites get behind, throw labour at it, get out of that problem and probably not do a lessons learned exercise afterwards to stop a repeat happening again.

Start-up – We throw managers at it – Chaotic and less efficient; but gets the job done. Sitting people down in a room to train on Lean not worked too well if not aligned with them. They may be thinking “what’s it got to do with me” or “it’s not my real world” We need to draw people into CI... demonstrate success. Kaizen events very successful.

We need demonstrable evidence from corporate community to share; we have a trickle from above so diluted at site level. Lot depends on site leadership teams.

Catalyst – senior team 100% bought in, allow that buy-in to spread, once colleagues on board they remain involved. Main management community might not get involved enough presently. Peripheral involvement. Score out of 10 = 4 for organisation. 6/7 personally.

- 3) One outcome of the PhD was to understand the potential for a symbiotic relationship between organisational learning (OL) and CI / PI implementation as this is noted in the published literature. (close and often long-term interaction between two or more bodies)
- a. Do you think our colleagues feel that they “belong” to DP DHL as part of the overall entity? Any evidence to support your view.
 - b. Are we more a **commensalism** approach? This is a class of relationship between two organisms where one organism benefits without affecting the other...?
 - c. Do we as an organisation understand the importance of Organisational learning, OFOR for our colleagues?
 - i. Are managers EI competent enough to notice?
 - ii. Does the organisation display behaviour to support its corporate image?
 - d. Do we use peoples’ skills they have away from work?
 - e. Where are colleagues in the implementation process – passive or active?
 - f. Are we good at learning?

- a) No. Colleagues’ identity not evident. Historical inertia to break through after years. Some colleagues think they work for Sainsbury’s [customer].
- b) PI targets are set remotely at divisional level; objectives plucked out of the air. Not personal, professional or discussion point. Pushed from corporate.
- c) OFOR – Penetration of knowledge very limited at colleague level; unless directly involved in PI or away days. Majority not aware, same for some managers to.
 - i. EI, self-awareness. Personality driven locally is positive due to using examples. It’s about knowing the people. Local PI team know the colleagues.
JS – DHL used a third party to complete his initial PI [academic] training. Academic competency good, course delivered complex subject matter, however very little if any use of specific DHL

example – not real life examples. Need to make it real to cross-section of DHL colleagues.

Course not tailored to individuals expectations. More real life examples would have been a big improvement. The measure of success is explicit results of exam result, not true learning. Tacit knowledge not taken into consideration.

Twenty people on course – two have certification since that time.

What was the rationale to send them?

- ii. At site yes. Under DHL we are trying to bring in more PI than before. Other sites are highly variable. CI can pull in one direction, operations in the opposite.
- d) If cropped up in conversation that someone is a painter and decorator, then we will engage with them and ask them about it, larger population probably not.
- e) Majority of colleagues are passive; in Kaizen events they are more active. We have “What If” in place and generally it is good. Process owners let the process down by not giving feedback.
- f) We are good at learning in small instances, overall cultural aspect, probably not. We firefight issues.

4) Knowledge management (KM)

- a. What does this mean for DP DHL?
 - i. Who is it for?
 - ii. Would colleagues understand it if we talked to them?
- b. Who owns KM in DP DHL?
 - i. How do we measure value?
- c. Where does it sit against company priorities?

- a) KM is managing how people are part of the organisation. Knowledge within the organisation. iShare, not widely used as not understood. Small number of individuals use it. You have to make an effort to use it, go out of your way.
 - i. It is for all colleagues, however also lots of colleagues don't have access.
 - ii. Nope colleagues would not understand it. Same with managers.
- b) Should be all of us, however doubt that. Whether we manage that knowledge well and use of that knowledge - everyone has a part to play in it. All managers should be part of it.

- i. Not sure we do.
- c) At site level it is quite low priority. At corporate level there is almost too much to find what you want on iShare. Similar PowerPoint presentations on same subject are available, difficult to know which one is right / preferred approach.

5) What is your perspective relating to the interaction between CI / PI and innovation?

I see a strong link between them. Creating new equipment / ways of working is innovation rather than CI. Customers can hold us back depending on their attitude. Automation provides the potential for more innovation, may lead to new opportunities. Need to work more with OEM's for automation solutions. Need to develop more. Stronger relationships with customers and OEM providers. Trust is important, including the way you interact with them. Don't bite the hand that feeds you. If you withhold from a business partner it will damage relationships.

6) What do feel should incentivise colleagues to support Innovation / CI implementation?

- a. Strategy 2020, Focus, Connect and Grow may be taking away the opportunity to be creative as "everything" will be standard. What is your view?
- b. What should we stop doing?

We need to do better for customers. Helps make job more secure. Colleagues should want jobs to be easier. Recent Kaizen events are good examples of positivity – batch pick good example, Shorter distance to travel improvement for colleagues carrying cases.

- a) 2020 is not about becoming a big red and yellow hive mind.
We are not good at sharing best practice. Who actively looking at synergies across sites? Talk but don't do so well. Work in silo's with our own world view. We are not good at looking for synergies. Is support structure there?
- b) Don't stop, just do things better. Improve on management knowledge of wider DHL world and DHL culture. 2015 and 2020 not understood by vast majority of managers.

- 7) The way and who delivers the CI / PI training is paramount. What do you feel are important areas?
- a. Attitude – do they have the audience attention?
 - b. Delivery – monotone, academic slant, boring or excellent?
 - c. Academic approach to colleagues with little or no academic knowledge.
 - d. Think about who delivers CI training, practices and programs, if they are the wrong personalities stop doing it. Use of Stories?
 - e. Driven by position, not by project management or presentation skills.
 - i. Self-awareness as to their delivery
 - ii. Feedback from line management.
 - iii. No formal skill-set.
 - f. Should there be an agreed non-CI skill set requirement?

- a) Awareness of your approach.
- b) The environment tools are to be used in. Make it relevant.
- c) You have to understand the tools. Also split training between generic and abstract.
- d) Cultural understanding – Tailor to suit culture; generic won't work. Split of training between academic and exercises 60/40%.
- e) Not all attendees are completing PI initiatives. Resource is an issue. CI bolted on to a colleague's role, not actual role. However changing as time goes forward. If not correctly resourced on a case by case need then best endeavours will result. This can work, but likely limited value. Can lay groundwork for more PI.
- f) Yes. There should be a non CI skill-set as part of the requirement.

- 8) Trust is identified with published literature re importance for colleague and manager engagement and successful implementations. What is your view on this relating to DP DHL position and how would you go about improving it to support CI implementation programs?

Trust at site follows a sine-wave i.e. good and then bad. Approach to, for example, rostering in will override all the good stuff we do. We don't always come through for our colleagues. Personal effectiveness will improve the position. Ensure you deliver on your obligations.

Our approach is sometimes too rules driven, not individual approach. We are risk averse, drives a black and white approach, driven by leadership expectations.

- 9) What skills are necessary to implement CI programs? Individual
- a. Presentation skills
 - b. Motivational skills
 - c. Self-awareness
 - d. Academic competency

What skills are necessary to implement CI programs? Organisation

- e. Improve iShare capability to deliver knowledge management?
- f. Recognise the importance of tacit and explicit knowledge
- g. General view - Explicit is organisation / tacit in individuals based upon experiential learning. How do we view the two elements?

Individual

Expressing 7 wastes - Easy to read off a list, however it is a constant battle.

Be engaging, understand colleague needs.

Academic potential to competently understand what we are about.

Organisation

Using visual aids or other more interesting media to tap into individual paradigm, make it real for them.

Appropriate resource available.

Academic potential to competently understand

Colleagues made available or and explain tools; including concepts.

Allowed to manage their own time

Time constraints and reports to share and develop learning is better.

Small breakthroughs and one-off steps are both good to improve.

We need to stop playing the “short game.”

- e. Improve iShare, it is directionless. DHL lacks due to “dumping” info into a receptacle [iShare] rather than it being a living platform, info added and then walk away. iShare is not promoted enough – unless you know what to look for you can’t find it. Word of mouth is best way to spread; CI area is not being used
- f. Tacit knowledge at corporate level lacking; at grass roots level site we could also do more. Kaizen is best way as it is colleague led.

10) What do you know of Appreciative Inquiry (AI) approach to implementation / issues resolution?

- a. If known what would you suggest in relation to how DP DHL could use it to their advantage?

I don't know the term. [LW explained briefly].

We celebrate big occasions well. Smaller ones not so good.

There are plenty of opportunities to use AI. Customers might be happy, but we should delight them. We speak to colleagues for negative issues rather than positive, coaching and positivity to build confidence. FLM's are highly variable, also managers vary in level of positivity used.

11) What does CI mean to you?

- a. Score 1-10 for importance to business.

CI means don't accept the status quo.

Always drive forward to make it better for all – ways of working better.

Culturally important, it drives tangible evidence that matters to colleagues.

Continually drive to make things better.

Communications is a key element, consistent message through communications.

CI – Use the tool kit consistently not obvious there is a consistent approach; although flexibility with tools can be useful sometimes.

- a) My score for importance to business is 7.

Appendix 9 - Respondents

Summary: This appendix provides a list of the respondents who took part in the semi-structured interview process.

Supporting documents include:

- Table of respondents.

Table of Respondents

Name	Role	Division	Function	Interview method Location
Tom Edwards	Senior CI and Value Creation Manager	UK Industrial	Continuous Improvement	Face to face. Stoke-on-Trent, 01/08/2014.
Patrick Sweeney	VP Process Improvement	Corporate	Continuous Improvement	Face to face. Bicester, 05/08/2014.
James Smith	Continuous Improvement Manager	UK IN Retail	Continuous Improvement	Face to face. Stoke-on-Trent, 07/08/2014.
Darren Tabiner	General Manager	UK IN Retail	Operations	Face to face. Stoke-on-Trent, 04/09/2014.
John Pusey	VP Continuous Improvement UK and Ireland	Corporate	Operations Excellence	Face to face. Tamworth, 01/10/2014.
Mick Sumner	General Manager	Home Retail Group	Operations	Face to face. Acton Gate, 31/10/2014.
Nigel Gallier	VP Operations Excellence	Corporate	Corporate	Face to face. Daventry, 12/11/2014.
Billy Currie	Campus Engineering Manager	UK Consumer	Engineering	Face to face. Daventry, 12/11/2014.
John Boulter	MD UK IN Managing Director	UK IN Retail	Operations	Face to face. Daventry, 18/11/2014.
Mel Brockhouse	VP Retail Operations	Corporate	Operations	Face to face. Bedford, 26/11/2014.